LLNL-JRNL-684357

LAWRENCE LIVERMORE NATIONAL LABORATORY

Deposition of Vaporized Species onto Glassy Fallout from a Near-Surface Nuclear Test

D. G. Weisz, B. Jacobsen, N. E. Marks, K. B. Knight, B. H. Isselhardt, J. E. Matzel, P. K. Weber, S. G. Prussin, I. D. Hutcheon

February 29, 2016

Geochimica et Cosmochimica Acta

Deposition of Vaporized Species onto Glassy Fallout from a Near-Surface Nuclear Test

David G. Weisz [1,2*], Benjamin Jacobsen[2], Naomi E. Marks[2], Kim B. Knight[2], Brett H. Isselhardt[2], Jennifer E. Matzel[2], Peter K. Weber[2], Stan G. Prussin[1+], and Ian D. Hutcheon[2+]

[1]Department of Nuclear Engineering, University of California, Berkeley, 4113 Etcheverry Hall MC 1730, Berkeley, CA 94720, USA

[2]Glenn T. Seaborg Institute, Lawrence Livermore National Laboratory, 7000 East Avenue, Livermore, CA 94550, USA

[+]Deceased

[*]Corresponding author. Glenn T. Seaborg Institute, Lawrence Livermore National Laboratory, 7000 East Avenue, Livermore, CA 94550, USA Tel.: + 1 925 422 0948

Email address: weisz3@llnl.gov

0. Abstract

In a near-surface nuclear explosion where the resultant fireball can interact with materials from the surface, vaporized materials from the nuclear device can be incorporated into molten soil and other carrier materials from that surface. This mixed material becomes a source of glassy fallout upon quenching and is locally deposited. Fallout formation models have been proposed; however, the specific mechanisms and physical conditions by which soil and other carrier materials interact in the fireball, as well as the subsequent incorporation of device materials with carrier materials, are not well constrained. We observe a surface deposition layer preserved at interfaces where two aerodynamic fallout glasses agglomerated and fused, and characterized 11 such boundaries using spatial analyses to better understand the vaporization and condensation behavior of species in the fireball. Using nanoscale secondary ion mass spectrometry (NanoSIMS), we identify higher enrichments of uranium from the device ($^{235}U/^{238}U$ ratio >7.5) in 8 of the interface layers. Major element analysis of the interfaces reveals the deposition layer to be enriched in Fe, Ca, Mg, Mn, and Na-bearing species and depleted in Ti and Al-bearing species. Most notably, the Fe and Ca-bearing species are enriched approximately 50% at the interface layer relative to the average concentrations measured within the fallout glasses, while Ti and Al-bearing species are depleted by approximately 20%. SiO_2 is found to be relatively invariable across the samples and interfaces (~3% standard deviation). The notable depletion of Al, a refractory oxide abundant in the soil, together with the enrichment of ^{235}U and Fe, suggests an anthropogenic source of the enriched species or an unexpected vaporization/condensation behavior. The presence of

both refractory (*e.g.,* Ca and U) and volatile (*e.g.,* Na) species approximately co-located in most of the observed layers (within 1.5 μm) suggests a continuous condensation process may also be occurring. These fallout formation processes deviate from historical models of fallout formation, and have not been previously recognized in the literature.

1. Introduction

When a nuclear bomb is detonated near a surface, materials from associated structural materials and surfaces (including environmental debris such as soils) can be swept up into the ensuing fireball and interact with vaporized device material. As the fireball rises and cools, the entrained environmental debris can melt, incorporate radionuclides, and then quench, producing glassy fallout (Ross, 1948; Adams *et al.*, 1960; Glasstone and Dolan, 1977). The first observations of fallout glass were made after the Trinity nuclear test in New Mexico in 1945 (Ross, 1948). Subsequently, fallout was a subject of study over several decades to 1) understand how radionuclides are incorporated into fallout, and 2) to determine how radionuclides would be distributed over a geographic area following a nuclear explosion (*e.g.,* Adams *et al.*, 1960; Crocker *et al.*, 1965; Freiling, 1961; Miller, 1964). The physical and chemical processes through which device material and environmental debris interact to form fallout glass are not well constrained, but are critical for advancing the understanding of fallout formation. While models for the incorporation of radionuclides into fallout differ, there is consensus that fission products, unfissioned device materials, and vaporized inert materials are incorporated into molten silicate-rich spherical objects via condensation, convective mixing, and agglomeration (Freiling 1970; Miller, 1960; Izrael and Stukin 1970).

Formation of macro-scale fallout is a competitive process requiring carrier material interaction at the time of or shortly after the nuclear explosion (Glasstone and Dolan, 1977). Any near-surface nuclear explosion where the fireball rise time permits entrainment of materials from the environment (such as in a surface event, a tower event, or a low-altitude burst), or in shallowly buried events where the fireball can break the surface, can result in the formation of glassy fallout so long as the rising fireball interacts with proximate carrier materials prior to cooling below the Draper point (~525˚ C for a black body radiator). In the seconds following a near-surface nuclear explosion, as the fireball expands, rises, and cools, vaporized material in the fireball may directly condense onto molten environmental debris and carrier materials, or may form condensates that subsequently deposit onto molten hosts. The resultant macro-scale materials generally settle out from the buoyant cloud within the first few hours, and are referred to as 'local' fallout.

Models of fallout formation suggest that the bomb vapor and resultant compositions trapped in the glassy fallout are affected by isotopic and chemical fractionation as the fireball evolves (Freiling, 1970). The fractionation process has been described in two phases based on the temperature regime and the state of carrier material (Miller, 1960). In the first phase, refractory fission products and residual actinides condense onto the surface of liquid carrier particles (such as melted environmental debris), and subsequently get incorporated into the particles through physical and chemical mixing processes. In the second phase, more volatile species condense onto the surfaces of solidifying carrier material (*i.e.,* quenched glass and unmelted environmental debris), resulting in an enrichment of volatile species at the surface relative to the average particle composition. While such models capture a general picture of fallout formation, the contribution of environmental debris to the vapor phase and the effect of carrier materials on radionuclide distribution within individual objects and among fallout populations remain relatively unexplored.

Recent studies have shown that residual fission products and unfissioned actinides occur almost ubiquitously in fallout samples, and are heterogeneously distributed within and between fallout objects (*e.g.*, Eppich *et al.*, 2014; Lewis *et al.*, 2015; Fahey *et al.*, 2010; Bellucci *et al.*, 2013; Belloni *et al.*, 2011). Historical studies, using autoradiography to spatially determine gamma and beta-emitters in samples, found that a relative increase in the radionuclide activity on the surface of fallout objects is common (Miller *et al.* 1964, Adams *et al.*, 1960). Autoradiography cannot generally determine the identity of these radionuclides, however, and the spatial resolution of this technique is typically limited to tens of micrometers. While many of the high-activity species reported in historical studies have decayed away in the intervening decades, historical fallout retains a record of unfissioned actinides that can still be studied today. While chemical and isotopic variations within the outer layers of fallout objects are predicted, examination of the surface layers of fallout can be complicated by the analytical challenges of topographical edge effects that can produce artifacts in spatially resolved analytical techniques. In this study, we report for the first time that a surface deposition layer is preserved at the interfaces where molten objects have agglomerated, and we characterize the species deposited on these surfaces prior to collision and quenching. We then consider the implications these observations have for models of fallout formation.

Interfaces in agglomerated fallout glass, as we show, preserve a record of the interaction of device material and environmental debris as a distinctive chemical layer deposited on the surface of fallout objects prior to agglomeration. This study characterizes the vapor component in the fireball as represented by the unfissioned fuel, and addresses how these vaporized species interacted with molten environmental debris to form fallout glasses. We present high-spatial-resolution analyses of major elements and uranium isotopes across the interfaces of agglomerated fallout objects, which we then interpret in the context of thermal and temporal evolution of vaporized material in the fireball, competing fallout formation processes, and fireball heterogeneity.

2. Samples

Samples of agglomerated fallout glasses from a uranium-fueled, near-surface nuclear test were acquired within 600 meters from ground-zero (as presented in Eppich *et al.* (2014) and Lewis *et al.* (2015)). While aerodynamic fallout glasses from this event have been typically described as highly symmetric glassy beads (*i.e.*, spherical or otherwise rounded), for this study, five pieces of fallout were specifically chosen for their preservation of secondary objects fused to the host glass surfaces. All samples are mm-sized, aerodynamic glassy objects with multiple adhered smaller spheroids (Figs. 1 and 2). The 5 larger host objects are referred to as samples A, B, C, D, and E, while the smaller attached objects are referred to as Objects A1, B1, B2, B3, C1, C2, D1, D2, E1, and E2. In sample A, tens of secondary objects ranging in size from 5 to 500 micrometers can be observed fused to the larger host object. In the other 4 glassy samples (see

Electronic Annex 1 for images of all samples), fewer than five secondary objects (~100 micrometer-scale) were observed fused to each larger host sample (*e.g.,* Fig. 2).

The five glassy fallout samples were mounted in epoxy, polished to the mid-plane of the adhered spheroids to expose agglomerate interfaces, and coated with ~5 nm of carbon to enhance conductivity. Sample interfaces were then characterized by multiple analytical techniques (discussed below), including scanning electron microscopy (SEM) and electron probe microanalysis (EPMA), and NanoSIMS (nanoscale secondary ion mass spectrometry).

A collection of the local soil was also studied to provide context on the likely compositional protolith of the fallout. Approximately 20 composite, mm-scale grains were arbitrarily selected from a pre-sieved soil sample (1.68 mm mesh size) picked clean of observable fallout glass that had been acquired within 1 km of ground-zero, away from the direct path of the fallout plume. These soil grains were mounted in epoxy, polished to 1-micrometer surface roughness, and coated with a conductive carbon layer (~10 nm). The soil samples were characterized by SEM and EPMA.

3. Methods

3.1 SEM and EDS

An FEI Inspect-F Scanning Electron Microscope was used to acquire secondary electron images (SE) and back-scattered electron (BSE) images, using accelerating voltages of 5 kV and 15 kV, respectively. In Object A1, SE images were acquired to observe topographical features on the intact sample prior to polishing. BSE images were used to characterize the compositional variations in all the fallout samples and the interfaces, based on relative BSE contrast variation in individual images. The mineral compositions and characteristic heterogeneity of the local soil was also characterized through BSE imaging of polished grain mounts. Further details of compositional variation of fallout objects and mineral phases are provided as supplementary material (Electronic Annex 1).

Semi-quantitative (standardless) major element composition profiles were acquired using an AMETEK EDAX Apollo XL Si drift energy dispersive x-ray spectrometer with an accelerating voltage of 15 kV. The profiles were acquired in traverses across the diameter of each analyzed fallout spherule along a path normal to the interface between fused objects, as well as across the interface into the larger host objects. The traverses consisted of 1 micrometer diameter analysis spots spaced approximately a micrometer apart, with a total of 7 interfaces characterized this way. The full EDS dataset is provided as supplementary material (Electronic Annex 4).

3.2 EPMA

Compositional maps and quantitative analyses of major elements in the soil grains and fallout glasses were acquired using a JEOL JXA-8200 electron microprobe. In fallout samples, compositional maps of Si, Al, Fe, Ca, K, and Na were acquired using 5 wavelength-dispersive spectrometers (WDS) and a JEOL silicon-drift energy dispersive X-ray spectrometer (EDS). These maps were acquired across selected small (100 to 400 micrometer diameter) attached spherules, including across the interfaces where these small objects fused to the larger host object. A total of 10 interfaces were characterized this way.

Quantitative composition profiles of major elements (presented here as the oxides SiO_2, Al_2O_3, FeO, CaO, K_2O, Na_2O, MgO, MnO, TiO_2) were acquired in traverses across the diameter of each analyzed fallout spherule along a path normal to the interface between fused objects, as well as across the interface into the larger host objects. The traverses consisted of 1 micrometer diameter analysis spots spaced 1.5 micrometers apart, with a total of 9 interfaces characterized this way. Each spot was acquired via WDS, with an accelerating voltage of 15 kV and a current of 10 nA. X-ray correction was performed using the CITZAF correction (Armstrong, 1995). For quantitative standardization, mineral standards comprising the oxide species of interest were analyzed using identical spectrometer and goniometer crystal settings as for the sample analyses; the specific standards were K-Feldspar (K, Al and Si); Fe_2O_3 (Fe); spessartine (Mn); rutile (Ti); diopside (Ca); albite (Na); and MgO (Mg). Under these conditions, the corresponding detection limits were 72 ppm for K, 173 ppm for Al, 162 ppm for Si, 294 ppm for Fe, 129 ppm for Ti, 118 ppm for Ca, 146 ppm for Na, and 146 ppm for Mg. Quantitative analyses were collected as element weight percent totals and converted to their corresponding oxide species using stoichiometric oxide conversion. In order to avoid topographical edge effects near the boundary between the sample material and the epoxy, only points more than 3 micrometers away from the edge were considered. The 1σ measurement uncertainties for major element spot analyses were <1% for Al, K, and Si, <5% for Na, Fe, Mg, and Ca, ~7% for Ti, and nearly 20% for Mn (see Electronic Annex 2 for full EPMA dataset).

Spot analyses in fallout samples were categorized regarding their proximity to the interface. Spots with local concentration maxima or minima observed co-located with the relatively high-Z interface region identified by BSE images are designated as ‘interface points’, while all points not co-located with the high-Z interface are designated ‘interior points’, for the purposes of data discussion (see Electronic Annex 2 for full EPMA dataset for fallout glasses). Individual spot analyses were also acquired by WDS on the soil grain mounts to characterize the composition of the constituent phases of the soil material (see Electronic Annex 3 for full soil dataset). Spot analyses with totals less than 96% were discarded.

3.3 NanoSIMS

Ion images of 9 interfaces from 5 different glassy fallout samples were acquired with a *Cameca* NanoSIMS 50. A 200 pA primary $^{16}O^{-}$ beam with a spot size of ~750 nm was generated using the *Hyperion II* primary ion source (Oregon Physics). Secondary ions of $^{30}Si^{+}$, $^{54}Fe^{+}$, $^{44}Ca^{+}$, $^{235}U^{+}$, $^{238}U^{+}$, $^{235}U^{16}O^{+}$, and $^{238}U^{16}O^{+}$ were collected on 5 electron multipliers (except Sample A1, in which $^{56}Fe^{+}$ was measured instead of $^{54}Fe^{+}$); separately collecting $^{30}Si^{+}$, $^{54}Fe^{+}$, $^{44}Ca^{+}$, $^{235}U^{+}$ and $^{235}U^{16}O^{+}$ from $^{238}U^{+}$ and $^{238}U^{16}O^{+}$ by magnetic peak jumping. A mass resolving power (*$M/\Delta M$)* of ≅ 4000 was used, sufficient to completely resolve interferences by $^{208}Pb^{27}Al$ (on ^{235}U) and $^{29}Si^{1}H$ (on ^{30}Si).

Instrumental mass fractionation of uranium isotopes and analytical variation over the course of the analyses were calibrated and quantified using spot analyses of both a matrix-matched glass standard, as well as a U_3O_8 standard. The ^{235}U-enriched glass standard was created at LLNL by fusing ~5% by weight of the CRM U100 U_3O_8 standard into a matrix of approximately 32% SiO_2, 37% Al_2O_3, and 31% CaO. CRM U100 has a certified $^{235}U/^{238}U$ ratio of 0.1136 ± 0.0001. An ~20% ^{235}U enriched U_3O_8 particle standard (CRM U200, certified $^{235}U/^{238}U$ ratio = 0.2512 ± 0.0003) was also used. The glass and U_3O_8 particle standards yielded measured percent deviations from the certified $^{235}U/^{238}U$ ratios of ~1.5% and ~2.5%, respectively.

Secondary ion images were acquired as 20×20 μm^2 areas, with each image constructed from a series of 75-100, 256×256 pixel rasters (except Object A1, which was constructed from a 10×10 μm^2, 128×128 pixel raster). Isotope ratio images of $^{54}Fe/^{30}Si$ (except Object A1, which used $^{56}Fe/^{30}Si$), $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ were generated from ion images, wherein the ratio image is an intensity map of an isotope ratio at each interface. Isotope ratio images were constructed using *L'image* software (Nittler, Carnegie Institution of Washington, Washington DC). Each image was smoothed using a 9-pixel (~0.6 micrometer) smoothing function (which approximated the NanoSIMS spot size applied for this study). In order to construct isotope ratio profiles, a 15-pixel wide (~1 micrometer) line was drawn normal to and across the interface between the two fused objects in each isotope image. The width of the line was selected to minimize the uncertainties in regions where count rates were low, while still accurately representing the variation of the isotope ratio across the interface. The 1σ measurement uncertainties for isotope ratios derived from the profiles were <1% for $^{44}Ca/^{30}Si$, $^{54}Fe/^{30}Si$, and $^{56}Fe/^{30}Si$, <5% for $^{235}U/^{30}Si$, and <10% for $^{235}U/^{238}U$ (see Electronic Annex 5 for full NanoSIMS dataset).

4. Results

4.1 Composition of soil material

The grain mounts of the soil material are primarily comprised of fine-grained granitic and rhyolitic clasts (mm-scale). The clasts primarily comprised quartz and feldspar, with lesser amounts of pyroxene and ilmenite. Feldspar compositions include both plagioclase (An_{15}-An_{40}) and alkali feldspar (Or_{35}-Or_{65}). These feldspar compositions are consistent with rhyolitic sediments. Pyroxene compositions were also observed, and include diopside and clinoenstatite. Table 1 shows the representative compositions of commonly observed minerals in the samples as acquired using EPMA spot analyses.

4.2 Relative heterogeneity and morphologies of fused glassy objects

Back-scattered electron images of polished fallout samples show a range of morphological and compositional characteristics in mm-scale host objects and smaller, adhered fallout spherules, as shown in Figure 3. The 5 larger (mm-scale) host objects to which the smaller objects are attached commonly have large vesicles (up to ~1 mm in diameter), as well as inclusions of what appear to be relict soil grains with diffuse boundaries based on major element composition (Fig. 3, Object D2).

Compositional heterogeneity of fallout glasses has been described in both trinitite (*e.g.,* Fahey et al. 2010, Bellucci and Simonetti 2012) and fallout objects from this test (Lewis *et al.*, 2015); however, the extent of compositional heterogeneity in sub-mm-scale objects has not been previously studied. In this study, the internal composition of the small, attached, glassy objects ranges from relatively chemically homogeneous (Fig. 3, Objects C1-3, E1) to distinctly heterogeneous (Fig. 3, Objects B3, D1, and D2). Vesicles (seen as dark black circles or ovals in BSE images) were most commonly observed in the samples showing the greatest degree of heterogeneity in major element composition.

Small patches, approximately tens of micrometers in diameter (*e.g.,* dark gray areas in Fig. 3, Object D2) were identified by EDS, and are nearly pure SiO_2 in composition.

The extent to which the smaller objects have been incorporated into larger objects varies (Fig. 3). For example, Objects C1 and C2 are two fused objects that have retained a highly spherical geometry, with the ratio of major and minor axes being ~1.07 in both cases. Object C3, on the other hand, appears flattened against the host object, having a ratio of major to minor axis of ~1.44, with the major axis measured at the widest point of the sample. This is further exemplified in Objects B1-3 (Fig. 3), where multiple stages of incorporation appear to be preserved; Object B3 has a flattened interface and has merged into the larger host, while sample B1 (left fused object, partially shown in Fig. 3) has only slightly merged with the central object. Between these two agglomerates, Object B2 is a smaller (~50 micrometer) object that is sandwiched between B1 and B3, and appears to have merged fully into the surface of B3.

One distinct feature present in all samples studied here, and of particular relevance to our findings, is seen at the interfaces of where the small glassy spheres (<1 mm) are attached to the larger objects. These interfaces appear as a thin, bright boundary in BSE images, suggesting these lines are regions of relatively higher average atomic number (Z) than the surrounding material (Fig. 3). Despite the range of morphologies and compositional variation observed in the agglomerated glassy fallout presented in this study, this high Z boundary feature is observed at every interface where the objects have fused together.

4.3 Major element composition of the interfaces

X-ray intensity maps (Fig. 4A), show that the high Z interfaces observed in the BSE images are part of a continuous layer that surrounds the smaller, attached objects, and appears enriched in Ca and Fe and depleted in Al relative to the average composition of the interiors of the smaller objects. The edges of objects adjacent to epoxy (shown in black) also appear to be enriched in Ca and Fe. Although this apparent enrichment at the sample edges could result from an artifact due to topographical edge effects, the continuity of this feature along agglomeration boundaries is strong evidence that the feature is intrinsic to the adhered objects. Object C2 in particular (Fig. 4A) shows a continuous, uniformly thick layer of Ca around the entire object adjacent to a region depleted in Ca. In 9 of the studied samples, the interface and exterior edge of the adhered objects is also enriched in Na, appearing as a thicker, more diffuse region when compared to the areas of Ca and Fe enrichment (*e.g.,* Fig. 4B). Samples with observable enrichment in Na at the interface and/or outer edge (as seen in X-ray intensity maps and EDS traverses) include A1, B1, B2, C1, C2, C3, D2, E1 and E2.

Major element traverses, presented in stoichiometrically corrected oxide form, show a chemical enrichment of Fe and Ca that is observed at nearly every interface, along with a corresponding depletion of Al and Ti relative to the interior. A typical relationship is shown in Fig. 5. These trends of relative elemental enrichment and depletion are also observed at the edge of the object, suggesting that the distinct compositional regions at the interfaces are part of a continuous layer around the smaller attached objects. The high beam current and small spot size necessary to acquire sufficient spatial resolution with sequential EPMA spot analyses for these traverses can result in volatilization of Na and K (up to 15% relative loss, see Electronic Annex 6). Taking this complication into account, composition profiles of Na and K (*e.g.,* Fig. 4B) acquired by EDS show relative enrichment of Na in 5 of the 9 interfaces (A1, C1, C2, C3, and E1) and relative enrichment in K in 3 of the 9 interfaces (C1, C2, and E1).

The enrichments and depletions of major elements at the interface of fused objects can be best summarized by as the individual spot analysis corresponding to the local minima or maxima (Table 2). The average (or nominal) concentrations of the major elements determined from data collected immediately adjacent to the interface (three spot analyses on either side, see Table 2), show the relative enrichment or depletion of the major elements at the interfaces with respect to the interiors of the samples. Localized enrichments of Fe, Ca, Mn, and Mg (converted to oxides) are observed at all 9 measured interfaces, although the low abundances of Mn and Mg make quantification of these two elements difficult. Both Fe and Ca enrichments are observed to be ~50% relative to their corresponding nominal values observed on either side of each interface. A corresponding depletion of Al and Ti is also observed at all 9 interfaces measured with EPMA, with both elements depleted ~20% relative to the nominal values on either side of the minima for each interface (Table 2). Si did not show appreciable variation in the attached objects or interfaces; SiO_2 concentration has a standard deviation of 2.9% for the entire dataset.

Comparison of the interface values with the average object compositions shows that the observed concentration enrichments and depletions cannot be explained by compositional variation of the host objects. This is exemplified in the major element oxide plot of CaO and Al_2O_3 (Fig. 6A). The interior data vary by approximately 10% Al_2O_3 concentration (average value of 13.8 ± 1.6% Al_2O_3 by weight), and 2% by weight in CaO. All interface data fall below the average Al_2O_3 concentration of the object interiors, with 7 of the interfaces greater than 1σ, and 4 of the interfaces greater than 2σ from the average value. While some interface data fall within 1σ of the average interior Al_2O_3 value, even these interfaces are depleted in Al_2O_3 when compared to the interior data points collected immediately adjacent to the local interface (Table 2). The CaO composition of the interfaces is generally enriched compared to object interiors (the average value is 2.0 ± 0.4 CaO by weight). Several of the interfaces are greater than 1σ, and 4 of the interfaces are greater than 2σ from the average CaO concentration of the interiors. Objects C2 and E1 have a lower concentration of CaO at the agglomerate interface. When compared to the immediately adjacent interior points, however, the interface of Object E1 is relatively enriched in CaO (Table 2).

Interfaces show a clear trend of enrichment in FeO (by as much as 55%) relative to object interiors (the average concentration of object interiors is 2.78 ± 0.42% FeO by weight). This is exemplified in the relationship between FeO and TiO_2 (Fig. 6B). Nearly all characterized interfaces are enriched in FeO concentration relative to the average interior FeO concentration (with the exception of B2), with 6 of the measured interface FeO concentrations greater than 2σ from the average interior concentration. Even at the interface of Object B2, the FeO concentration is 17% higher than the concentration measured immediately adjacent to its interface. The TiO_2 concentration in 8 of the 9 measured interfaces is depleted relative to the average concentration of the interior (0.29 ± 0.06% TiO_2 by weight), with 4 of the measured interfaces having a TiO_2 concentration more than 1σ from the average concentration of the object interiors. In 6 of the 9 measured interfaces TiO_2 is depleted relative to the interior values by >25%.

4.4 Isotopic compositions at interfaces

The isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ show a relatively higher value of each isotope ratio in 8 of the 9 interfaces, as measured by NanoSIMS ion image generated maps. All nine boundaries show a high level of ^{235}U isotopic enrichment (>60%) relative to ^{238}U, and six of these show increased uranium concentration at the interface between two fused objects (*e.g.,* Figure 7; Electronic Annex 1). Further, the $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, and $^{235}U/^{30}Si$ maxima are commonly observed to be spatially co-located (to within <1.5 micrometers) at the measured interfaces (*e.g.,* Fig. 8). These relationships are not ubiquitous, as the interfaces of Objects A1, B1, and B2 do not show a systematic enrichment at the interface (discussed below).

At the C1 interface, the $^{54}Fe/^{30}Si$ and $^{44}Ca/^{30}Si$ isotope profiles across the boundary with the host object are consistent with the EPMA oxide data for Fe and Ca (Fig. 7). Table 3 presents the isotope ratio variation of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ across the interface of Object C1, as shown in Figure 7. The $^{235}U/^{30}Si$ profile at this boundary indicates a pattern of high $^{235}U/^{30}Si$ ratio at the interface having a quasi-Gaussian shape, similar to that of Fe and Ca as measured by both EPMA and NanoSIMS. The $^{235}U/^{30}Si$ ratio at the interface increases 10-fold, from a baseline value of approximately 10^{-4} to approximately 10^{-3} (Table 3). At approximately the same location as the maximum $^{235}U/^{30}Si$ value, the $^{235}U/^{238}U$ ratio of the C1 interface also has a local maxima at the interface with a value of ~7.5, compared to a value of ~6 on either side of the interface (Table 3).

The enrichment pattern at the B2 interface differs notably from the other samples in this suite. Object B2 shows a characteristic enrichment of $^{54}Fe/^{30}Si$ and $^{44}Ca/^{30}Si$ at the interface, as otherwise observed in the sample suite. However, unlike the rest of the objects in this sample suite, a sharp compositional boundary between a region of higher and lower $^{235}U/^{30}Si$ ratio is observed at the B2 interface (Fig. 9). In contrast, the B1 interface, while attached to the same host object, shows the characteristic enrichment of $^{235}U/^{30}Si$ observed in all the other investigated interfaces (Fig. 9).

5. Discussion

5.1 Thermal histories preserved in agglomerated fallout glasses and their implications

The average composition of these fallout glasses is compositionally similar to local environmental materials (*e.g.,* Eppich *et al.*, 2015; Table 1). When characterized at the sub-mm-scale, however, these fallout glasses reveal significant textural and compositional heterogeneities. Larger (mm-scale) host objects preserve evidence of mechanical mixing (such as composition flow textures), variable degrees of vesiculation, eccentric (non-spherical) shapes, and inclusion of vitrified relict grains (in these samples, areas of nearly pure SiO_2 with diffuse boundaries, Fig. 3). The brightness and contrast of BSE images was adjusted at the time of collection to highlight unique features in each individual sample, preventing direct comparison of the contrast between images. Within-image contrast between host objects and agglomerates captured in the same BSE image, however, can be used to characterize general composition features. Among the studied population of agglomerated objects examined here, several attached objects are relatively chemically homogeneous in comparison to their respective host objects, based on the relative contrast variation in individual BSE images (see Figs. 3 and 10). This observation suggests that these smaller objects were not only molten long enough to acquire a spherical shape through surface tension, but were also heated to sufficient temperature long enough to allow for homogenization of the probably multi-mineralic soil precursor through a combination of mixing and/or diffusion.

The relative homogeneity of small agglomerated objects (as compared to their host objects) provides a metric by which individual agglomerated objects can be compared. For example, Object D2 is the most compositionally heterogeneous (i.e. very similar contrast variation to the larger host of sample D), while Object C1 is relatively homogeneous when compared to the larger host object of sample C (Fig. 10). Given that D2 and C1 are approximately the same size (~250 μm and ~200 μm in diameter, respectively), a comparable level of homogeneity would be expected assuming identical starting composition and temperature history. Object D2 shows evidence of relict quartz and has preserved flow textures, suggesting internal advection or mechanical mixing, while these features are absent from Object C1. The observed variability in the degree of compositional homogeneity between agglomerated objects suggests that these individual objects were exposed to variable degrees of heating and/or duration of heating.

The degree of deformation and coalescence of small objects after collision with larger objects is also indicative of the thermal history of glassy fallout agglomerates. In Objects C1-3 (Fig. 3), C1 and C2 experienced little deformation from ideal sphericity upon collision with the larger object, while C3 has coalesced with the larger object. In Object C2, the larger host, sample C, appears to wrap around the exterior of the smaller object to some extent. This suggests that the smaller object was more viscous than the host object, though surface tension and collisional velocity also affect the outcomes of liquid droplet collisions (Qian and Law, 1997). While droplet interaction parameters were not quantified in this study, viscosity increases more than 1000-fold for glass compositions similar to fallout from 2000 K to 1500 K (calculated from Giordano *et al.*, 2008), and the degree of deformation and coalescence may reflect the thermal dissimilarity between objects. The timescales at which surface closure to mass transfer occurs in glasses of these compositions (~1500 K) has been quantified in mm-scale objects from a single event to range from <0.1 to 2.9 seconds (Cassata *et al.*, 2014). This variation is attributed to both thermal variation in the fireball and the trajectory of entrained material through the fireball. Thus, as collisions between agglomerated objects occurred in the fireball, the range of thermal histories experienced by similarly sized fallout objects indicates thermal heterogeneity in the fireball and/or a difference in duration of heating for individual objects. In either or both cases, the presence of a deposition layer at every observed interface suggests that a continuing condensation processes (or deposition of condensates onto the surfaces of molten carrier materials) occurs over a range of times and/or temperatures in the fireball.

5.2 Interpreting enrichments of device material at interfaces

Using high-spatial-resolution analytical methods such as NanoSIMS to probe the interfaces of agglomerated fallout glasses, we observed an increase in ^{235}U relative to the interior of micrometer-scale objects. The ubiquitous presence of enriched levels of ^{235}U in these fallout glasses confirms that significant mixing of device material with environmental debris occurs during glass formation (Eppich *et al.*, 2014, Lewis *et al.*, 2015). Both historical autoradiography studies and modern spatial studies, however, show that the mixture of device material into fallout is not a uniform process. SIMS analyses (Lewis *et al.*, 2015) have demonstrated variation in $^{235}U/^{238}U$ over 2-3 orders of magnitude in single objects. More interesting to this study, enrichment of active beta emitters (such as ^{90}Sr and other fission products) has been observed as a surface layer on fallout objects (Crocker *et al.*, 1965, Adams *et al.*, 1957). While we can no longer characterize shorter-lived nuclide distributions in these materials (US atmospheric nuclear activity concluded with the end of the Plowshare program in 1977, and thus any shorter-lived radionuclides have since decayed), we postulate that historically reported surface features may correspond with the surface layer we observe preserved at the interface of agglomerated objects. In our analyses, local enrichments of ^{235}U are correlated with increased iron and calcium concentration in nearly every sample (*e.g.,* Figs. 7 and 8), suggesting that these species co-condensed, depositing together.

The $^{235}U/^{238}U$ ratios at the characterized interfaces of agglomerated objects indicates that the vast majority of the uranium in the deposition layer observed in this sample suite is not natural in origin, but instead derived from residual device fuel. It is expected that a fraction of other local material proximate to the device (such as soil and associated structural materials related to the staging of the nuclear test) would have also been vaporized in the initial explosion. Vaporization of soil and other local materials is the most probable source of the other observed chemical enrichments in the interface layers. The observed co-locations of $^{44}Ca/^{30}Si$, $^{54}Fe/^{30}Si$, and $^{235}U/^{30}Si$ enrichments (*e.g.,* Fig. 8) are most simply interpreted as the result of Fe and Ca from the soil and/or anthropogenic components vaporizing together with the device fuel, and subsequently forming a direct condensate from the vapor state or depositing onto the carrier materials as a condensed species.

5.3 Depletion of Al and Ti at the interface

Agglomerate interface layers are consistently depleted in Al and Ti, along with relative enrichment of Fe and Ca (Fig. 6). Al and Ti are relatively refractory elements that are abundant in the soil material from which such fallout carrier material is most likely derived (Table 1). The boiling points of oxides found in the soil provide a simple metric by which to compare their relative volatilities in complex silicate matrices. Given the similarity in boiling points of FeO, TiO_2, CaO, and Al_2O_3 (2785 K, 3273 K, 3100 K, and 3250 K, respectively: Cornell and Schwertmann, 2003; Haynes, 2015; Patnaik, 2003) and the occurrence of FeO with TiO_2 and CaO with Al_2O_3 in major mineral phases (*i.e.,* ilmenite and plagioclase, see Table 1), it might be expected that these species would enter the vapor phase together, condensing proportionally onto molten carrier materials. However, boiling points may be a poor proxy for estimating vaporization behavior of these species out of a complex silicate such as the proximate soils. One possible explanation for the observed depletion of Al and Ti at our interfaces is that Al and Ti did not enter the vapor phase with Fe and Ca, as might expected based on their boiling points and co-occurrences in their respective common mineral phases (Al, Ca in plagioclase and Fe, Ti in ilmenite), making these elements less available for interaction with molten carriers in the fireball. This interpretation is unlikely, however, as CaO is approximately as refractory as Al_2O_3 in a molten silicate system similar to that found in fallout samples (Walter and Giutronich, 1967).

Fractionation between species may instead be dictated by the condensation behavior within the fireball environment. Condensation temperatures for Ca, Ti, and Al are calculated by Lodders *et al.* (2003) are reported to be within ~100 K of each other. These values are calculated for elements condensing out of a solar composition gas in equilibrium, however, rather than for fireball conditions, which may be significantly different. While historical fallout formation models assume a highly oxygenated fireball (*e.g.,* Miller, 1960), the study by Cassata *et al.* (2014) provides evidence of a reducing fireball environment during fallout formation. The speciation of vaporizing constituents can change depending on oxygen fugacity and temperature (Lamoreaux *et al.*, 1984 and Lamoreaux *et al.*, 1987). Such changing conditions would not only affect the composition of the vapor phase, but would also affect the condensation behavior of these constituents.

Silicate soils are unlikely to be the sole source of elements in a fireball vapor due to the abundance of other structural and instrumentation material that may have been placed in the near field for historical nuclear tests. Recent studies of fallout debris from the Trinity test (trinitite) identify unusual chemical and isotopic enrichments as signatures attributed to support structures, unfissioned fuel, and other, non-fuel device components (Fahey *et al.*, 2010; Bellucci *et al.*, 2014; Donahue *et al.*, 2015; Eby *et al.*, 2015). Thus, an alternative explanation for the Ca enrichments observed at the interfaces may be the presence of an anthropogenic source (*e.g.,* structural materials, such as common cement having >60% CaO) proximate to the device prior to the explosion that significantly contributed to the vapor phase, rather than simple derivation from local soil material (~1.5 wt% CaO, Eppich *et al.*, 2014). While aluminum is also a common constituent of concrete aggregates, the relative aluminum content of potential anthropogenic structures external to the nuclear device prior to explosion can vary considerably, and is unknown for this location. Similarly, the excess Fe observed at the interfaces within these samples may also derive from significant vaporization of Fe-bearing component (*i.e.,* steel). The observed pattern of enrichments and depletions at the interfaces may therefore reflect, in part, relative contributions of proximate structural materials, manifesting as an apparent depletion of aluminum relative to iron, calcium, and uranium in the vapor phase. Further determination of the volatilization and condensation behavior of these species will be necessary to differentiate between these hypotheses.

5.4 Co-location of volatile and refractory species at the interface

Historical models of fallout formation present a two-stage fractionation sequence for the incorporation of vaporized species into molten carriers. Specifically, these models argue that in a first stage refractory species (including uranium) are expected to condense early and distribute volumetrically into molten host materials, while in a second, later stage, more volatile species are expected to condense and deposit on the surface of already solidified hosts (Freiling 1970; Miller, 1960; Izrael and Stukin 1970). In a silicate system of composition similar to that of these fallout objects (Walter and Giutronich, 1967), Al_2O_3 and CaO would be considered the most refractory species, while K_2O, SiO_2, and Na_2O would be the most volatile. If the condensation sequence was dictated by the relative volatility of individual vaporized species, we would expect to see a distinct separation of refractory oxides from volatile oxides. This would manifest as a higher relative concentration of refractory species (*e.g.,* Ca and Al from the environmental debris, ^{235}U from the device) volumetrically distributed inside of the glassy fallout objects, and a post-quenching surface-deposited layer of volatile species (*e.g.,* enriched in Na_2O, K_2O derived from vaporization of the local soil). Instead, as observed at these interfaces, enrichments of both refractory (Fe, Ca, Mg, Mn, and ^{235}U) and volatile species (Na) are observed to be co-located at the interfaces in more than half of the studied samples, while Al is depleted at this boundary in all the samples. The presence of a layer enriched in both refractory and volatile species deposited onto molten soil carriers that have already encountered and incorporated a device-material bearing vapor phase does not fit well into a two-stage interaction model dictated by oxide species volatility such as that proposed by Miller (1960).

Two possible explanations can account for the presence of the observed interfaces: 1) The deposition layer reflects continuous condensation and mixing based on the volatility of species in the vapor, where speciation may be complex and/or changing under the rapid cooling conditions of the fireball vapor, and/or 2) Molten carrier materials interacted with a compositionally and thermally heterogeneous fireball vapor, with later interactions encountering a compositionally different (for example, Al-depleted) vapor. Norman and Winchell (1966) first proposed a model of continuous condensation and diffusion to explain observations of incorporated fission products, in contrast with the model of Miller (1960) where refractory species condense early and mix volumetrically, while volatile species deposit onto an already frozen particle without being appreciably incorporated into the object. Continuous profiles of vapor-derived species, where a single, continual concentration gradient between host and agglomerated object is preserved on either side of the interface, were not always observed in our study. As shown in the $^{235}U/^{30}Si$ ion ratio images of the agglomerate interfaces of Objects A1 and B3 (Electronic Annex 1 and Fig. 11, respectively), as well as the qualitative EPMA map of the Ca distribution in Object C2 (Fig. 4A), continuous concentration profiles appear rare for every element characterized in this study, with the exception of Si. This observation is exemplified in Fig. 11, where the $^{235}U/^{30}Si$ isotope ratio image shows a distinct layer of ^{235}U at the interface between two objects. While zones of relative ^{235}U depletion can be seen on either side of the local ^{235}U maxima, it is one of the depleted zones which hosts the local maxima for $^{54}Fe/^{30}Si$.

The presence of a relatively high $^{235}U/^{30}Si$ region adjacent to a relatively low $^{235}U/^{30}Si$ - high $^{54}Fe/^{30}Si$ region can be best explained by a discontinuous evaporation and condensation process. For example, if the molten carrier objects passed through a vapor in the fireball having a negligible uranium concentration (*i.e.,* not well-mixed with device material) but significant iron concentration, the partial pressure of U would favor an evaporative process, resulting U loss from the soil-derived host material, but permitting significant deposition of Fe. Subsequently, if debris then passed through a vapor having high uranium concentration (*i.e.,* well-mixed with and dominated by vaporized device material), the partial pressure of U would favor a condensation process, depositing a layer of uranium with higher relative ^{235}U. If the trajectory of the fallout debris brought it through a relatively cooler region of the fireball that had become more concentrated in volatile species, it is possible that these species could also condense onto and diffuse into the still-molten fallout object. Given the variation in relative enrichment and depletion of species observed at the interfaces, our study suggests that a combination of these processes is likely to be occurring.

5. Conclusions

We identified a set of micrometer-thick compositionally distinct surface layers in fallout, best preserved as boundaries between agglomerated glassy fallout objects. Using a combination of spatially resolved analytical techniques, we determined the major element and uranium isotopic compositions of the observed deposition layers, and their relative enrichments or depletions with respect to the object interiors and host object compositions. While the interior composition of glassy fallout objects more closely matches the major element composition of local soils, the composition of the boundary layers does not resemble any particular mineral phase or the average soil composition. Relative to the bulk (interior) compositions of the attached objects, the interface layer is enriched in ^{235}U, indicating that the deposition layer in enhanced in device material. The correlation of ^{235}U enrichment with relative enrichment of Fe and Ca at these interfaces indicates mixing with vaporized species from the soil or proximate anthropogenic structural material, and preferential condensation. A notable depletion of refractory Al and Ti at the interface, species abundant in the soil, complicate this interpretation. The Al and Ti depletion at these interfaces is unlikely to be due to preferential evaporation from the sample surfaces, but may be indicative of an anthropogenic source (*e.g.,* the device or structural materials related to the staging of the event). These patterns of enrichment and depletion may also be attributed to or enhanced by unexpected vaporization/condensation behaviors of species in the fireball. In order to more comprehensively understand these behaviors, it will be necessary to study the speciation of these elements, and their vaporization and condensation behaviors in controlled environments representing fireball conditions.

The observed interface layers are also frequently enriched in volatile species such as Na and K. This observation is best explained by a continuously occurring condensation-diffusion process while the fallout objects were entrained in the fireball, rather than by a two-step deposition process that would have fractionated volatile and refractory species. Observed regions of enrichment and depletion for uranium within individual samples point to either heterogeneities in fireball vapor composition, where vaporized materials from environmental debris and the device were not well mixed, and/or competing vaporization-evaporation processes affected by local gradients of already deposited species.

Regardless of the specific mechanisms, the observed surface and interface layers were clearly deposited after the carrier material melted, but prior to agglomeration and quenching. Previous studies of these materials show that the entire volume is variably enriched in uranium concentration as well as isotopic ^{235}U, relative to natural values (Eppich *et al.*, 2014, Lewis *et al.*, 2015). If species in the vapor phase interacted with carrier materials in a continuous condensation-mixing process, the species present in the fireball vapor must have volumetrically interspersed through the molten carrier via diffusion and/or physical mixing processes prior to deposition of the surface layer characterized in this study. Quantifying diffusion profiles at the interface can provide further insight into the range of timescales and temperatures these fallout objects experienced in the fireball prior to quenching, and is the subject of concurrent research.

6. Acknowledgements

Dr. Ian D. Hutcheon and Professor Stanley G. Prussin, who both passed away while writing this paper, will be deeply missed for their mentorship and their friendship. We also thank Josh Wimpenny for contributing analyses of the glass standard materials; Gary Eppich, Laurence Lewis, and Marc Fitzgerald for constructive discussions, and Bill Cassata for his comprehensive comments and revisions. Finally, we thank Dr. Marc Norman, Dr. Christian Koeberl, Dr. Larry Nittler, and one anonymous reviewer for their careful and constructive insights during the review of this manuscript. This material is based upon work supported by the Department of Energy National Nuclear Security Administration through the Nuclear Science and Security Consortium under Award Number DE-NA0000979. This work was funded by the Office of Defense Nuclear Nonproliferation Research and Development within the U.S. Department of Energy's National Nuclear Security Administration. Lawrence Livermore National Laboratory is operated by Lawrence Livermore National Security, LLC, for the U.S. Department of Energy, National Nuclear Security Administration under Contract DE-AC52-07NA27344. LLNL-JRNL-684357.

7. References

Adams C. E., Farlow N. H. and Schell W. R. (1960) The compositions, structures and origins of radioactive fall-out particles. *Geochimica et Cosmochimica Acta* **18**, 42-56.

Adams C. E. and O'Connor J. D. (1957) The Nature of Individual Radioactive Particles, VI: Fallout Particles from a Tower Shot, Operation Redwing.

Armstrong J. T. (1995) CITZAF: a package of correction programs for the quantitative electron microbeam x-ray analysis of thick polished materials, thin films, and particles. *Microbeam Anal.* **4**, 177-200.

Belloni F., Himbert J., Marzocchi O., and Romanello V. (2011) Investigating incorporation and distribution of radionuclides in trinitite. *J. Environ. Radioact.* **102**, 852-862.

Bellucci J. J., Simonetti A., Koeman E. C., Wallace C. and Burns P. C. (2013) A detailed geochemical investigation of post-nuclear detonation trinitite glass at high spatial resolution: Delineating anthropogenic vs. natural components. *Chem. Geol.* **365**, 69-86.

Cassata W. S., Prussin S. G., Knight K. B., Hutcheon I. D., Isselhardt B. H. and Renne P. R. (2014) When the dust settles: stable xenon isotope constraints on the formation of nuclear fallout. *J. Environ. Radioact.* **137**, 88-95.

Crocker G. R., O'Connor J. D. and Freiling E. C. (1965) Physical and Radiochemical Properties of Fallout Particles. US Naval Radiological Defense Laboratory, USNRDL-TR-899.

Donohue P. H., Simonetti A., Koeman E. C., Mana S. and Burns P. C. (2015) Nuclear forensic applications involving high spatial resolution analysis of Trinitite cross-sections. *J. Radioanal. Nucl. Chem.* **306**, 457-467.

Eby G. N., Charnley N., Pirrie D., Hermes R., Smoliga J. and Rollinson G. (2015) Trinitite redux: Mineralogy and petrology. *American Mineralogist.* **100**, 427-441.

Eppich G. R., Knight K. B., Jacomb-Hood T. W., Spriggs G. D. and Hutcheon I. D. (2014) Constraints on fallout melt glass formation from a near-surface nuclear test. *J. Radioanal. Nucl. Chem*. **302**, 593–609.

Fahey A. J., Zeissler C. J., Newbury D. E., Davis J. and Lindstrom R. M. (2010) Post-detonation nuclear debris for attribution. *Proc. Natl. Acad. of Sci.* **107**, 20207–20212

Freiling E. C. (1961) Radionuclide Fractionation in Bomb Debris. *Science* **133**, 1991-1998.

Freiling E. C. (1970) Mass-Transfer Mechanisms in Source-Term Definition. In *Radionuclides in the Environment.* American Chemical Society, Washington, D.C. pp. 1-12.

Glasstone S. and Dolan P. J. (1977) The Effects of Nuclear Weapons. US DOD and US DOE. US Government Printing Office: 1977 O-213-794, Washington, D.C.

Haynes, W. M (Ed.). (2015-2016) *CRC Handbook of Chemistry and Physics. 96th ed.* CRC Press: Boca Raton, FL.

Izrael Y. A. and Stukin E. D. (1970). Production of Radioactive Fallout. In *The Gamma Emission of Radioactive Fallout.* US Atomic Energy Commission and NSF, Washington, D.C. pp. 1-46.

Lamoreaux R. H. and Hildenbrand D. L. (1984) High Temperature Vaporization Behavior of Oxides. I. Alkali Metal Binary Oxides. *J. Phys. Chem. Ref. Data.* **13**, 151-173.

Lamoreaux R. H., Hildenbrand D. L. and Brewer L. (1987) High-Temperature Vaporization Behavior of Oxides II. Oxides of Be, Mg, Ca, Sr, Ba, B, Al, Ga, In, Tl, Si, Ge, Sn, Pb, Zn, Cd and Hg. *J. Phys. Chem. Ref. Data.* **16**, 419-443.

Lewis L. A., Knight K. B., Matzel J. E., Prussin S. G., Zimmer M. M., Kinman W. S., Ryerson F. J. and Hutcheon I. D. (2015) Spatially-resolved analyses of aerodynamic fallout from a uranium-fueled nuclear test. *J. Environ. Radioact.* **148**, 183-195.

Lodders K. (2003) Solar System Abundances and Condensation Temperatures of the Elements. *The Astrophysical Journal.* **591**, 1220-1247.

Mehta P. K, Monteiro PM (2006) *Concrete: microstructure, properties, and materials.* McGraw-Hill, New York.

Miller C. F. (1964) *Biological and Radiological Effects of Fallout from Nuclear Explosions.* Stanford Research Institute, Menlo Park, CA.

Miller C. F. (1960) *A Theory of Formation of Fallout from Land-surface Nuclear Detonations and Decay of the Fission Products.* Naval Radiological Defense Laboratory, San Francisco, CA.

Norman J. and Winchell P. (1966) Cloud Chemistry of Fallout Formation. *Proceedings of the Fallout Phenomena Symposium 1966*. pp. 12-54.

Patnaik P. (2003) *Handbook of inorganic chemicals (Vol. 28)*. McGraw-Hill, New York.

Qian J., Law C. K. (1997) Regimes of coalescence and separation in droplet collision. *J. Fluid. Mech.* **331**, 59-80.

Ross C. S. (1948) Optical Properties of Glass from Alamogordo, New Mexico. *American Mineralogist*. **33**, 360-362.

Cornell R. and Schwertmann U. (2003) *The Iron Oxides: Structure, Properties, Reactions, Occurences and Uses (2nd Ed)*. Wiley-VCH GmbH and Co. KGaA.

Walter L. S. and Giutronich J. E. (1967) Vapor Fractionation of Silicate Melts at High Temperatures and Atmospheric Pressures. *Solar Energy.* **11**, 163-169.

8. Tables

Table 1

Table 2

Table 3

9. Figures

Figure 1. Secondary electron image of Object A1, an agglomeration of many spheroidal objects ranging from tens to hundreds of micrometers in diameter. The smaller spheroidal objects show varying degrees of incorporation into a larger host object. For the full set of sample images, see the Electronic Annex 1.

Figure 2. Optical microscope images showing typical aerodynamic morphologies with multiple, smaller, spheroidal objects fused to the surface of the larger host object. The smaller attached objects exhibit various stages of incorporation into the larger object, evidencing an active agglomeration process preserved by rapid cooling conditions.

Figure 3. Back-scattered electron images of samples A-E. Each image shows one or more interfaces where small, spheroidal objects are attached to a larger host object. The interfaces are consistently highlighted as a high-Z (bright) boundary. Note that the brightness and contrast settings were chosen to highlight features within the individual images, and do not translate between the sample images. Top panes (left to right): Object A1; Objects B1, B2, and B3; Objects D1 and D2; Bottom panes (left to right): Object C3; Objects C1 and C2; Object E1.

Figure 4. (A) X-ray intensity maps of aluminum, calcium, iron, and sodium for Object C1 (right attached object) and C2 (left attached object). The relative concentration for each element is shown as an intensity map, where dark blue is low concentration and yellows/reds are the highest concentrations. The interfaces are enriched in Fe and Ca, while Al is depleted. The Ca map shows that the observed bright interface in BSE (see Fig. 3) is a continuous layer, circumscribing the attached object. The Na map of Object C1 shows enrichment of Na at the interface and edge. (B) X-ray intensity map of Na for Object E1, showing uniform enrichment of Na around the periphery of the attached object, along with semi-quantitative EDS profiles of Na and K along the red line in the Na map in the direction of the arrow.

Figure 5. EPMA line scan within Object C1. In panel (A) a BSE image of the object the BSE image indicates the approximate location of the scan with a yellow line. The line scan comprises 1 micrometer diameter points spaced approximately 1.5 micrometers apart. Data were collected for oxides of (B) Fe, (C) Ca, (D) Si, (E) Al, and (F) Ti. The gray data points illustrate the compositional variation of major elements from the edge of the object towards the center, while the blue data points show the variation of major elements across the interface. The uncertainties are 1σ, based on counting statistics. Enrichments of Fe and Ca are apparent at the interface and at the edge, while Al is depleted at the interface and the edge. The behavior of Ti shows no resolvable pattern at the sample edge, but a region of chemical depletion approximately co-located with the Fe interface maximum is seen. The concentration of SiO_2 remains relatively constant at the edge and the interface, changing by <6% of the maximum value.

Figure 6. (A) Major element oxide plot of CaO and Al_2O_3 taken from quantitative WDS data collected across the agglomerated objects, and across the interface where they fused to larger objects. The interior data represent 903 data points taken in the interior of the agglomerated objects; the gray shaded region shows the compositional range of the entire dataset. The interface points, indicated in blue, represent data points taken at the Al_2O_3 trough of relative depletion in concentration. The interface data points are depleted in Al_2O_3 for all samples, and the CaO content at the interface is enriched in 8 of the 9 samples. (B) Major element oxide plot of FeO and TiO_2 from the same dataset, with the shaded region depicting the range of the interior dataset. Here, FeO is observed to be enriched at the interface with a corresponding depletion of TiO_2 at 6 of the 9 sample interfaces.

Figure 7. (A) NanoSIMS ion images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ are shown to the right of a BSE image for the interface of Object C1. The $^{235}U/^{30}Si$ ion image is superimposed over the BSE image (red box), at the location the ion images were acquired. $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, and $^{235}U/^{30}Si$ images reveal the variation of these elements across the interface, assuming the ^{30}Si concentration is relatively constant (<10% variation in ^{30}Si signal intensity observed, consistent with acquired EDS data). The enrichment of ^{54}Fe, ^{44}Ca, and ^{235}U at the interface, in combination with the $^{235}U/^{238}U$ image, show that U at the interface is predominantly ^{235}U (>80%). This is clearly seen in panel B, which shows the isotope ratio data from a traverse across the interface along the location of the white arrow in the $^{54}Fe/^{30}Si$ image. The Fe, Ca, and U maxima all display quasi-Gaussian shapes. At the mid-point of the traverse, the $^{235}U/^{238}U$ plot yields an enrichment of 88.6 ± 0.4% ^{235}U. This pattern of uranium enrichment co-located with Fe and Ca enrichment as well as U isotope enrichment was observed at nearly every analyzed interface.

Figure 8. $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, and $^{235}U/^{30}Si$ ratios normalized to their respective maximum values are overlain to illustrate the relative spatial distribution of Fe, Ca, and U across the interface of Object C1 with host sample C, showing the characteristic co-location of the Fe, Ca, and U enrichments.

Figure 9. BSE images from Objects B1 and B2 (left-most frames) shown with $^{235}U/^{30}Si$ ion images of the interfaces. The middle frame shows the $^{235}U/^{30}Si$ ion image of the interfaces, while isotope ratio variation along a line orthogonal to the interface is shown in the right-most frames. Corresponding data are provided in Table 3. Interface B1 shows the characteristic variation across the interface preserving local maxima and minima, while interface B2 shows an atypical pattern across the interface, where a region of high $^{235}U/^{30}Si$ appears to have partially diffused into a region of low $^{235}U/^{30}Si$, preserving no distinct maximum at the interface. The bright white squares seen in the BSE images are an analytical artifact, where the carbon coating was removed during NanoSIMS analysis.

Figure 10. BSE images from Objects C1 (top left) and D2 (bottom left) relative to their larger host objects showing the degree of chemical heterogeneity in the samples. The contrast histogram of C1 is much narrower than that of host sample C, while the contrast histogram of D2 is approximately the same as host sample D, showing that Object C1 is comparatively more homogeneous than Object D2 when compared to their respective host objects. Note that while the contrast variation plots of C1 and D2 appear similar, these BSE images were taken under different contrast/brightness conditions and cannot be compared in an absolute sense.

Figure 11. (A) BSE image of the approximate location of the ion image acquired for Object B3, where Object B3 is in the top left of the image, and host sample B is in the bottom right (image collected from the far left interface as seen in Fig. 3). (B) $^{235}U/^{30}Si$ ratio ion image, showing that a layer of isotopically distinct ^{235}U at the boundary is abutted on either side by regions of relative ^{235}U depletion. The white outline indicates the location of a corresponding high $^{54}Fe/^{30}Si$ region adjacent to the high $^{235}U/^{30}Si$ region. (C) The corresponding $^{54}Fe/^{30}Si$ ratio image, showing the layer of Fe defining the boundary in the BSE image is offset from the high ^{235}U region, and is instead co-located with a local region of relative ^{235}U depletion.

Figure 1

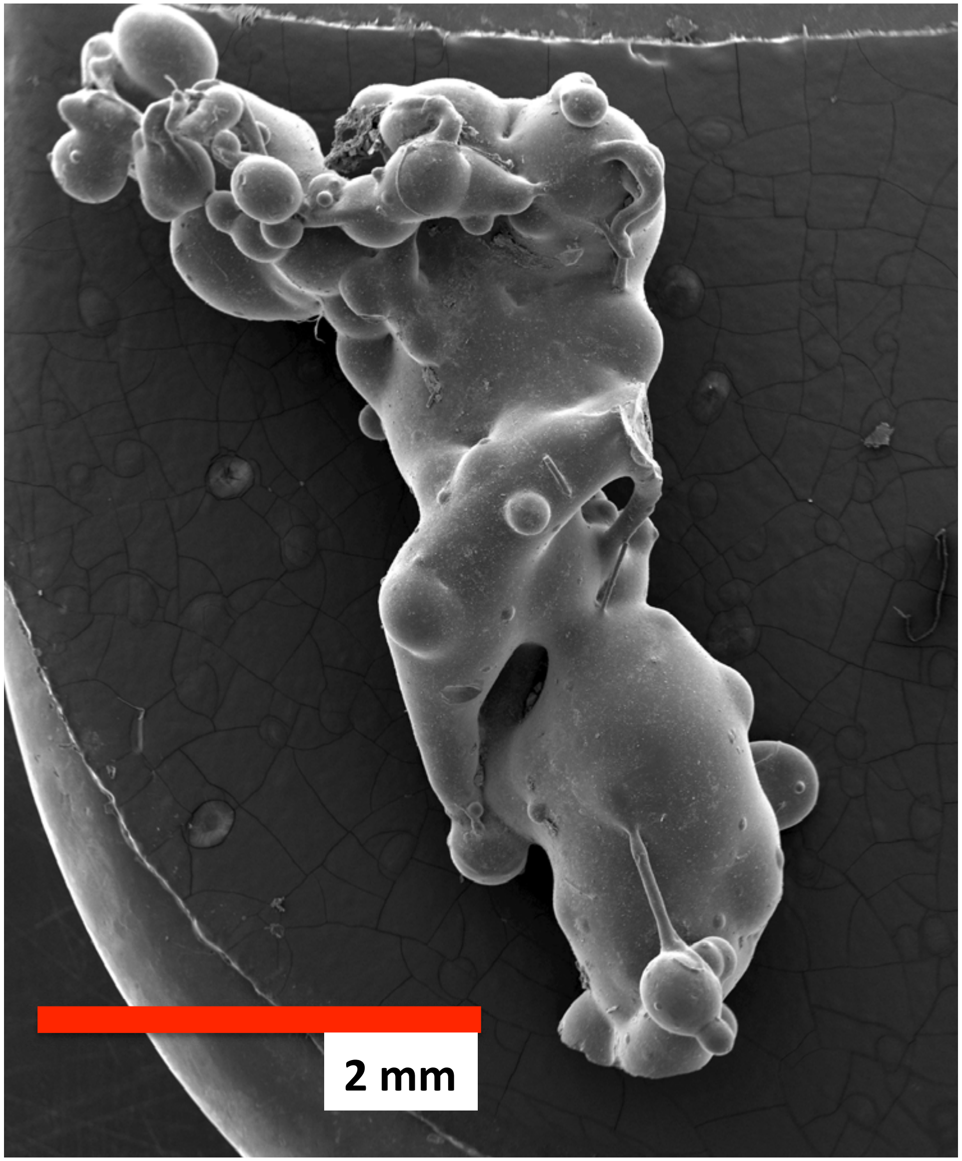


Figure 2

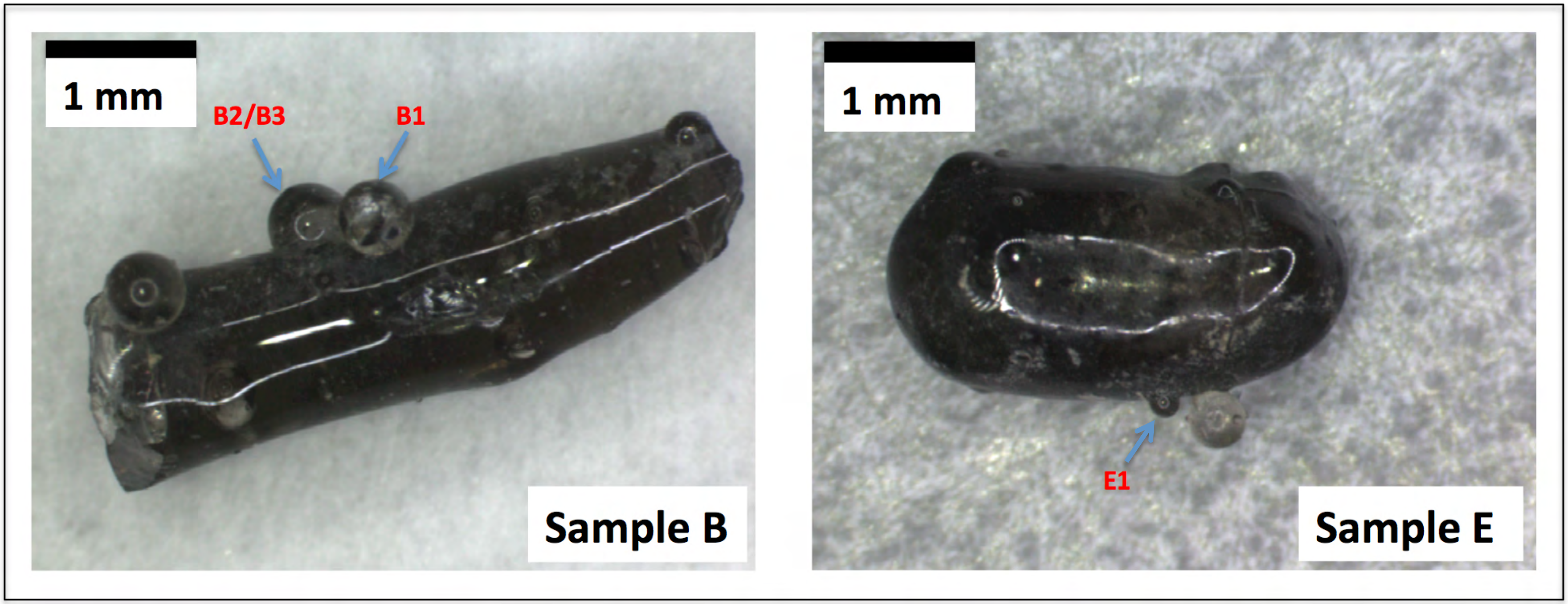


Figure 3

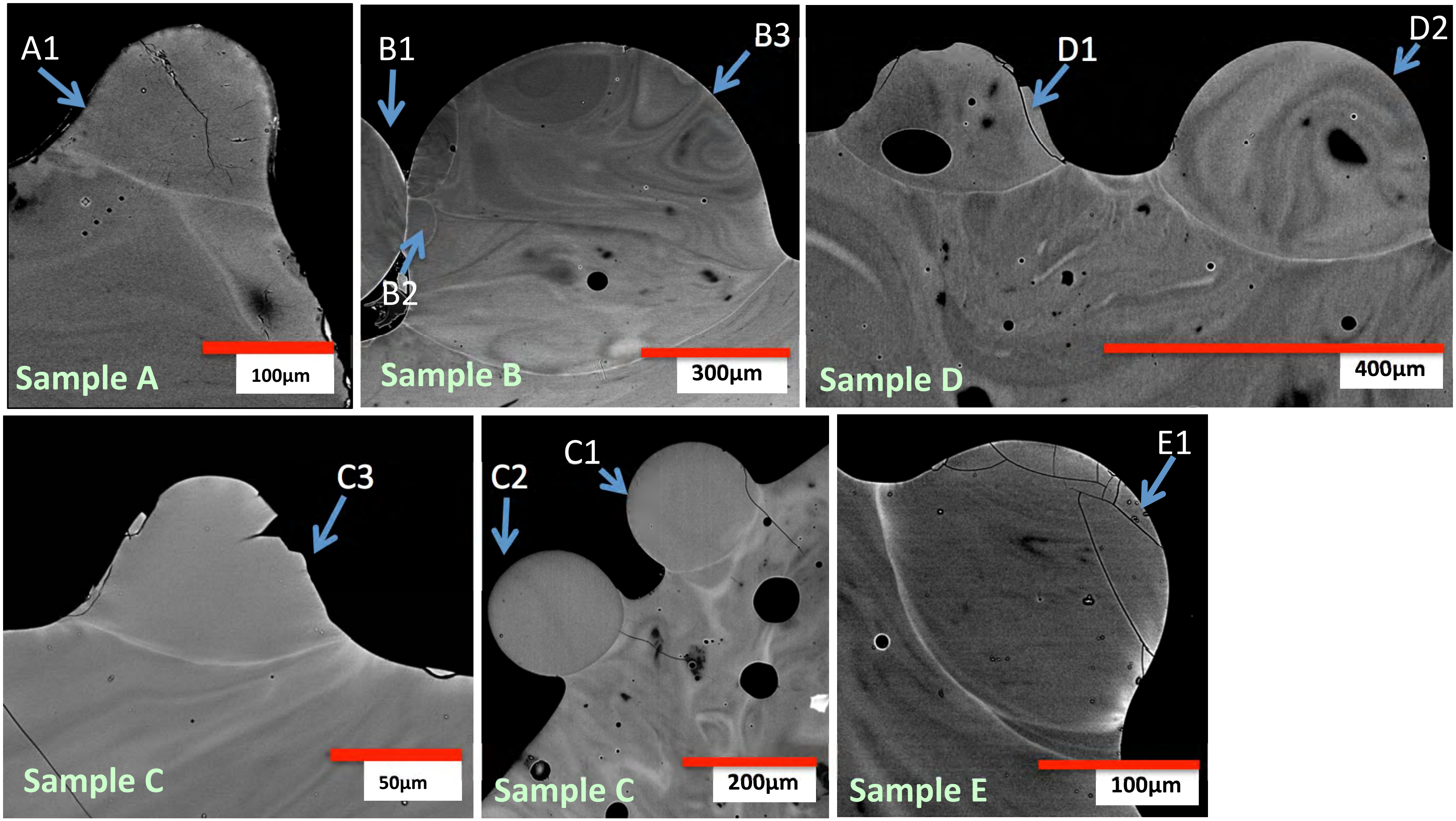
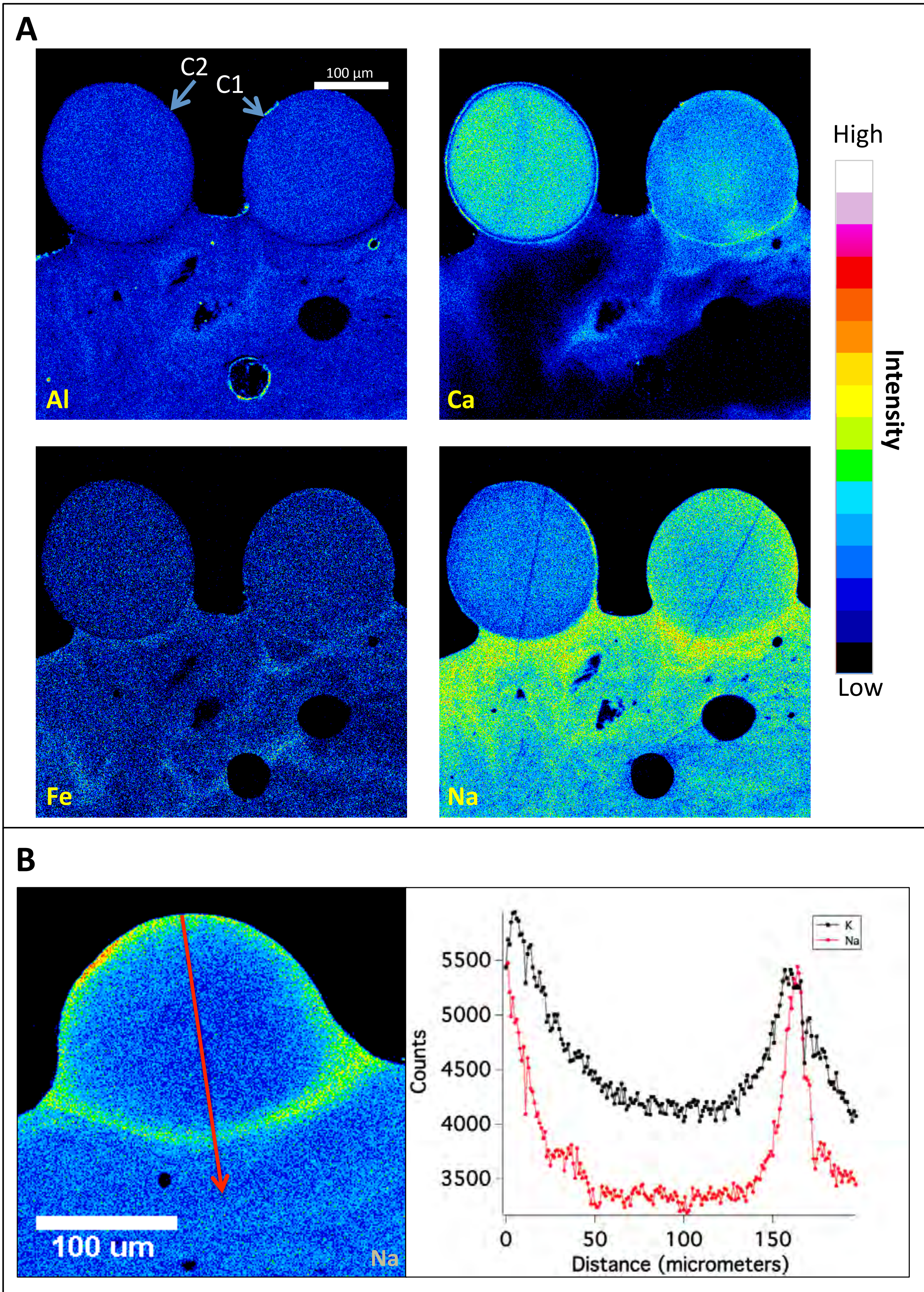
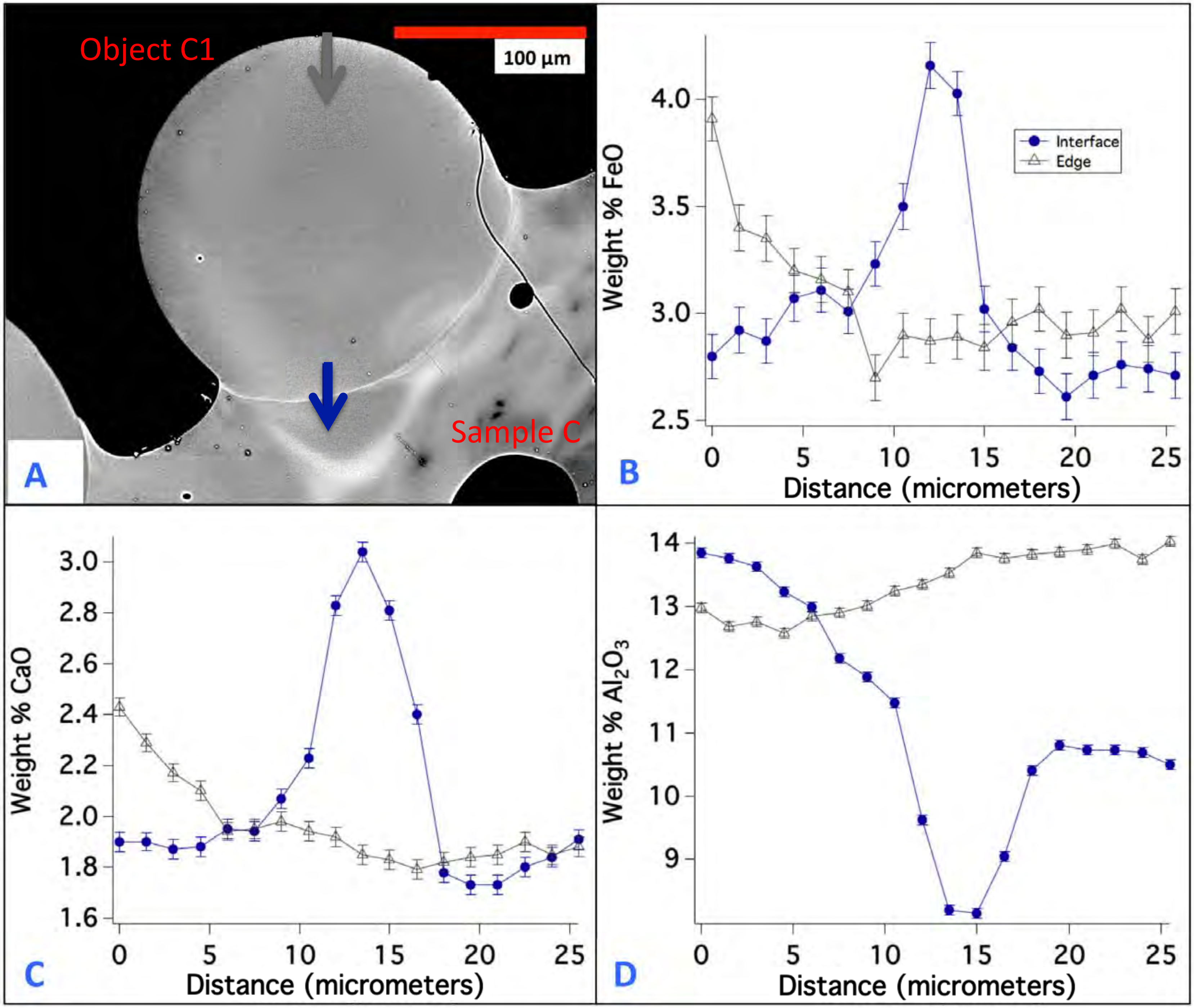

A1
Sample A
100µm
B1
B2
B3
Sample B
300µm
D1
D2
Sample D
400µm
C3
Sample C
50µm
C1
C2
Sample C
200µm
E1
Sample E
100µm

Figure 4



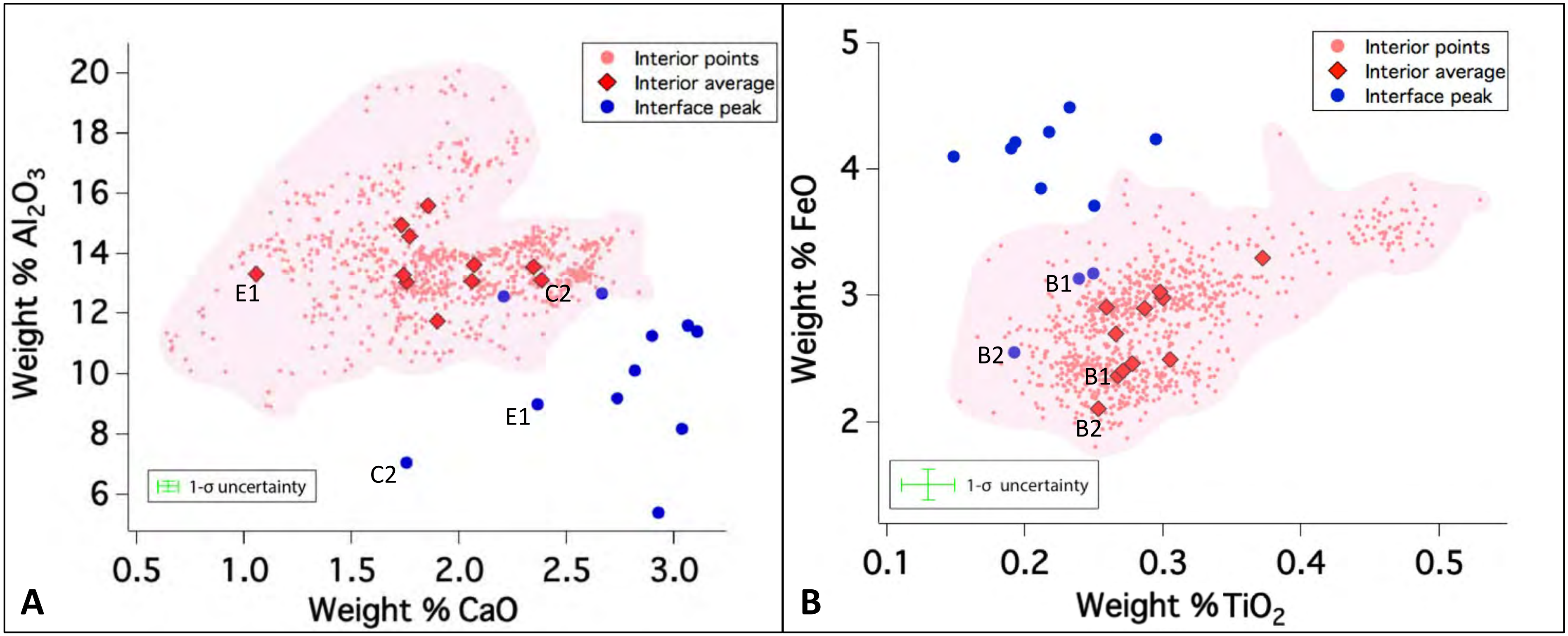
A
C2
C1
100 µm
Al
Ca
Fe
Na
High
Intensity
Low
B
100 um
Na
K
Na
Counts
5500
5000
4500
4000
3500
0
50
100
150
Distance (micrometers)

Figure 5



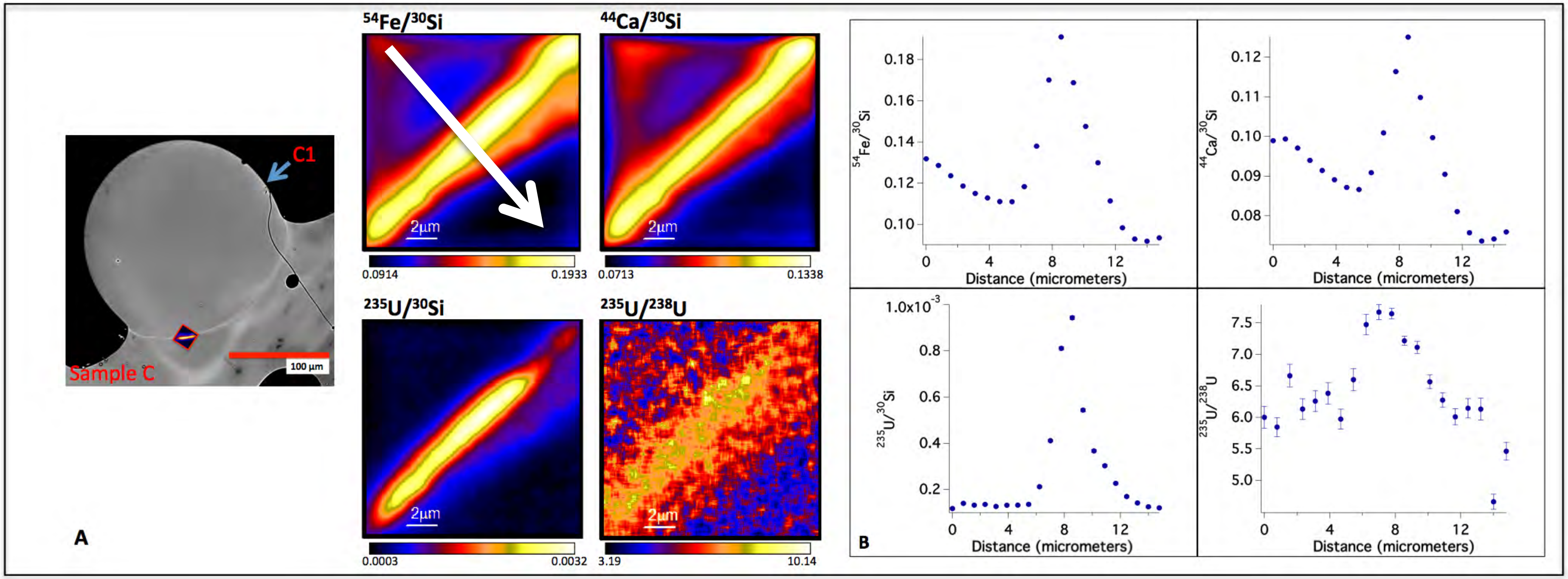
Object C1
100 µm
Sample C
A
Weight % FeO
4.0
3.5
3.0
2.5
Interface
Edge
0
5
10
15
20
25
Distance (micrometers)
B
Weight % CaO
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
C
Weight % Al_2O_3
14
13
12
11
10
9
D

Figure 6



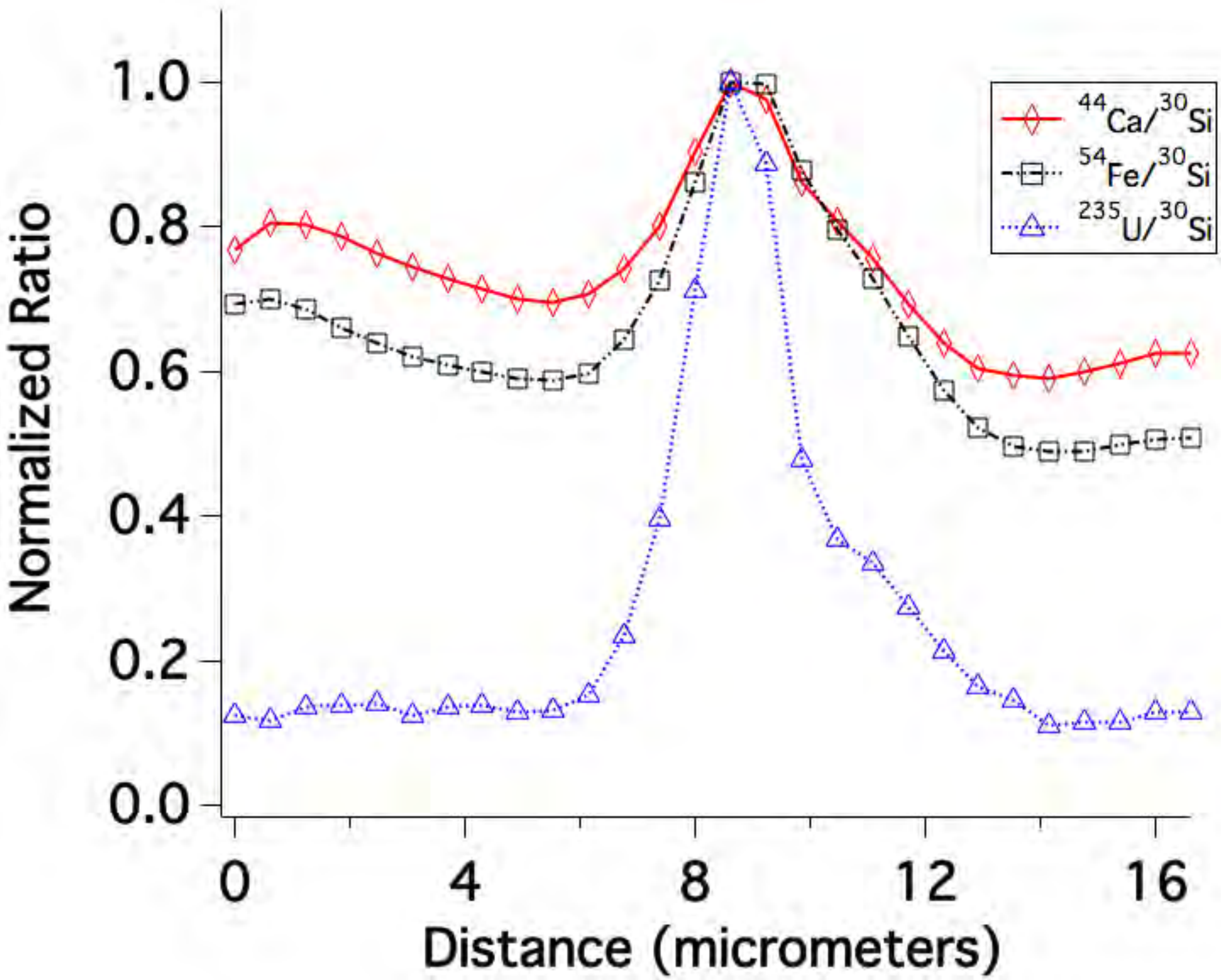
Weight % Al_2O_3
Weight % CaO
Interior points
Interior average
Interface peak
1-σ uncertainty
E1
C2
E1
C2
A
Weight % FeO
Weight % TiO_2
Interior points
Interior average
Interface peak
B1
B2
B1
B2
1-σ uncertainty
B

Figure 7



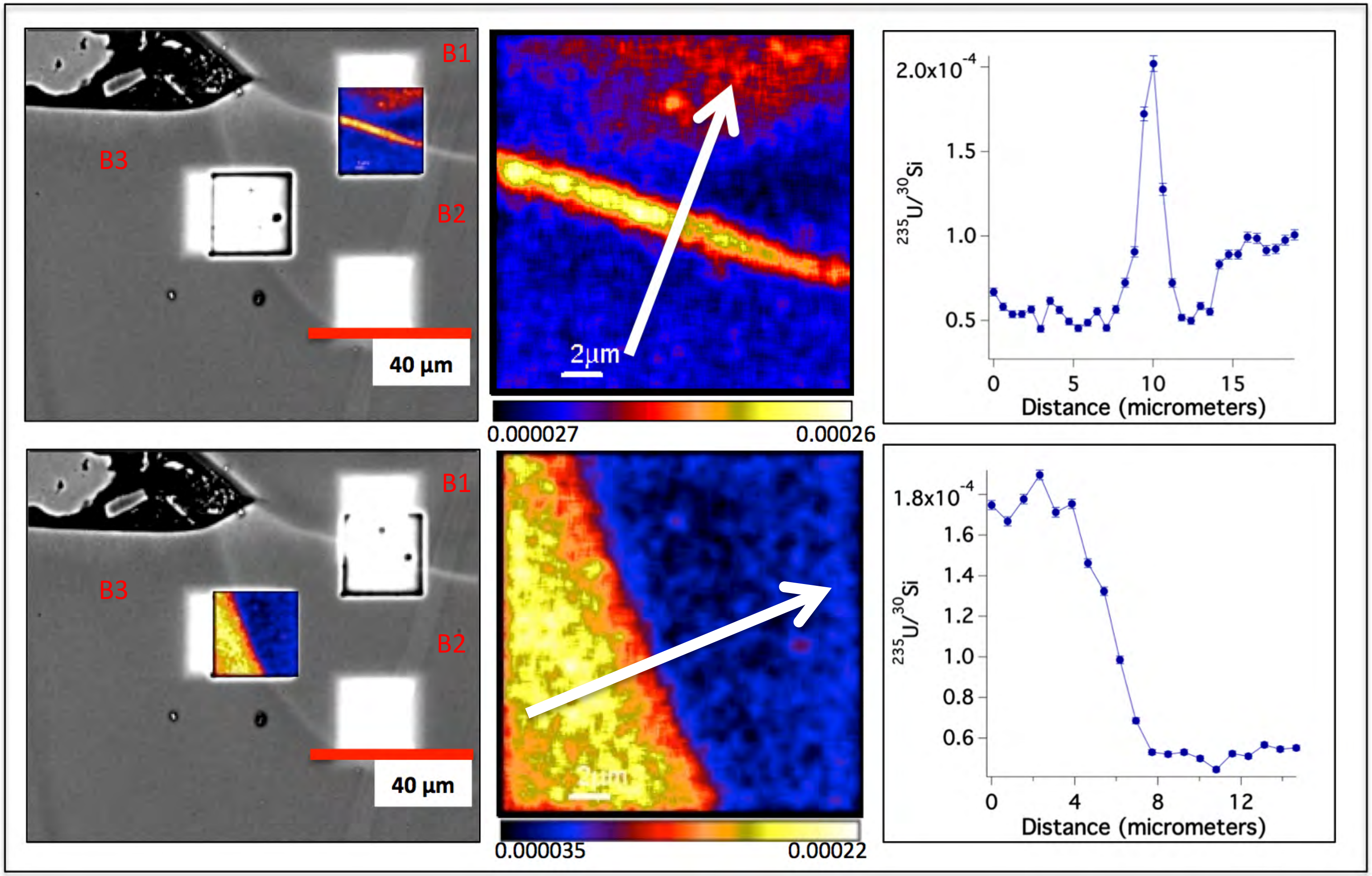
C1
Sample C
100 µm
A
$^{54}Fe/^{30}Si$
$^{44}Ca/^{30}Si$
$^{235}U/^{30}Si$
$^{235}U/^{238}U$
2µm
0.0914
0.1933
0.0713
0.1338
0.0003
0.0032
3.19
10.14
B
Distance (micrometers)
$^{54}Fe/^{30}Si$
$^{44}Ca/^{30}Si$
$^{235}U/^{30}Si$
$^{235}U/^{238}U$
$1.0x10^{-3}$

Figure 8



1.0
0.8
0.6
0.4
0.2
0.0
Normalized Ratio
0
4
8
12
16
Distance (micrometers)
$^{44}Ca/^{30}Si$
$^{54}Fe/^{30}Si$
$^{235}U/^{30}Si$

Figure 9



B1
B3
B2
40 µm
2µm
0.000027
0.00026
2.0x10^-4
1.5
1.0
0.5
235U/30Si
0
5
10
15
Distance (micrometers)
B1
B3
B2
40 µm
2µm
0.000035
0.00022
1.8x10^-4
1.6
1.4
1.2
1.0
0.8
0.6
235U/30Si
0
4
8
12
Distance (micrometers)

Figure 10

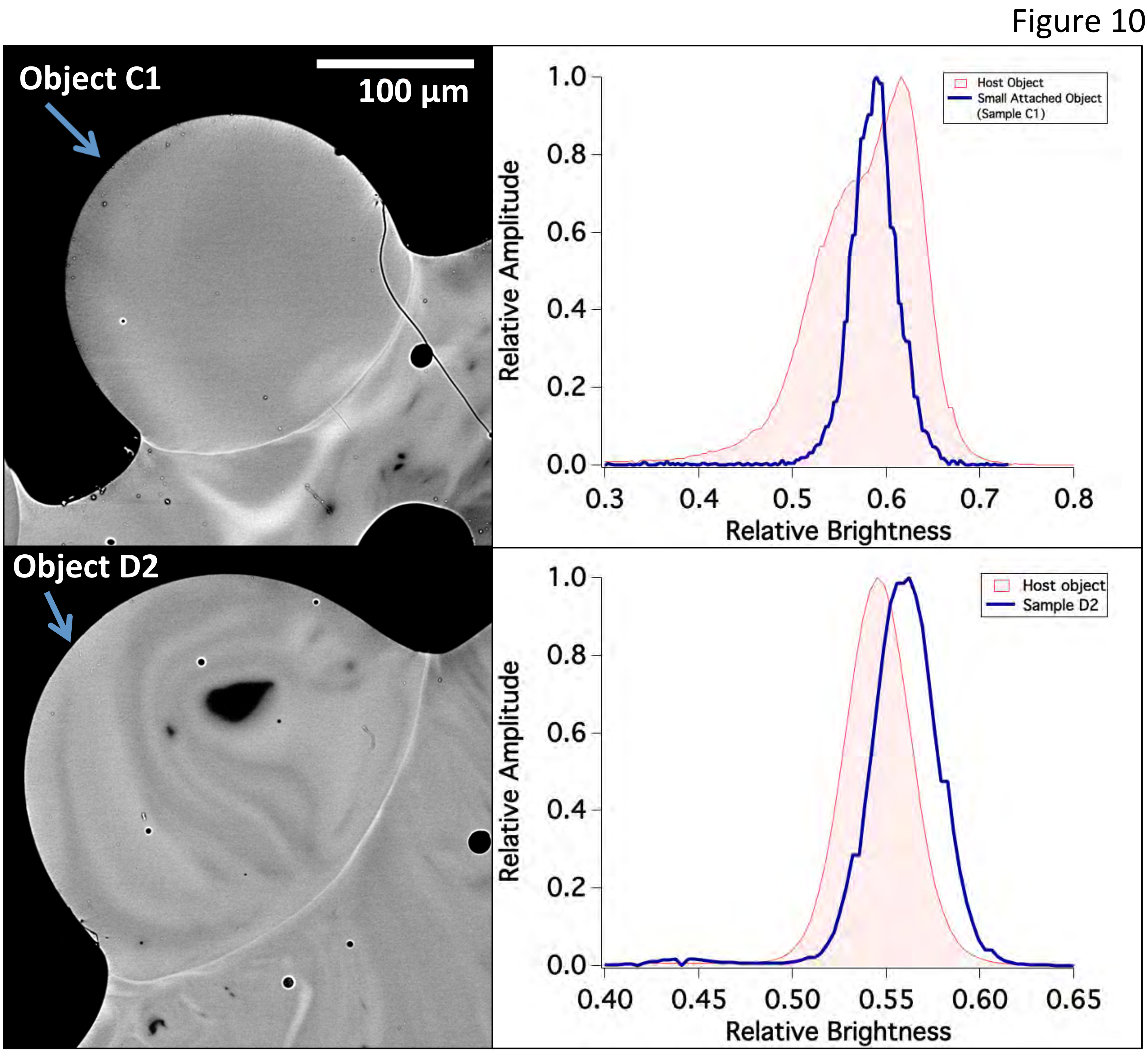
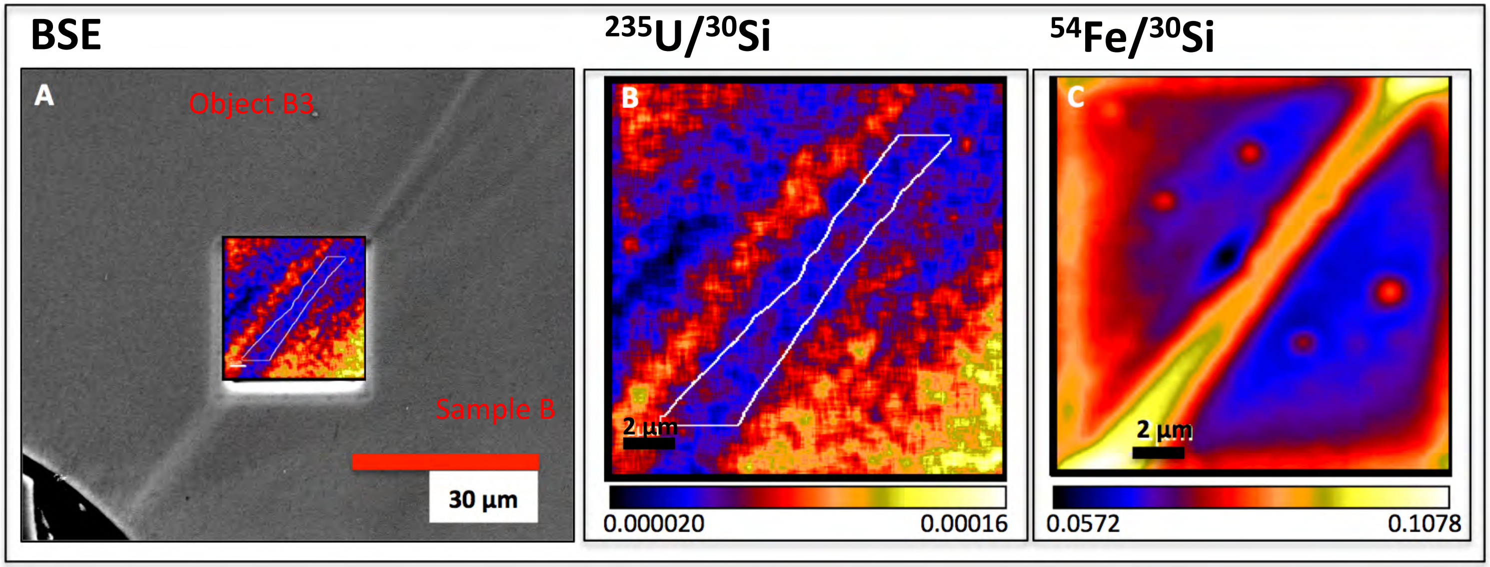


Figure 10
Object C1
100 µm
Object D2
Host Object
Small Attached Object
(Sample C1)
Relative Amplitude
Relative Brightness
Host object
Sample D2

Figure 11



BSE
$^{235}U/^{30}Si$
$^{54}Fe/^{30}Si$
A
Object B3
Sample B
30 µm
B
2 µm
0.000020
0.00016
C
2 µm
0.0572
0.1078

Table 1

Representative WDS composition data of mineral phases in the soil (wt %), with variation shown as standard deviations.

Mineral Phase	*Na_2O*	*MgO*	*K_2O*	*CaO*	*MnO*	*FeO*	*TiO_2*	*Al_2O_3*	*SiO_2*
Alkali Feldspar	*5.58±1.27*	*<DL*	*8.09±1.68*	*0.51±0.43*	*0.02±0.03*	*0.50±0.71*	*0.05±0.05*	*19.76±1.01*	*65.27±2.10*
Plagioclase	*7.29±1.23*	*0.02±0.03*	*1.55±0.28*	*5.43±1.90*	*0.02±0.02*	*0.37±0.23*	*0.04±0.04*	*24.36±1.47*	*60.35±2.60*
Clinoenstatite	*0.04±0.05*	*23.15±0.48*	*<DL*	*1.65±0.05*	*0.71±0.02*	*18.69±0.04*	*0.33±0.03*	*0.76±0.00*	*52.99±0.14*
Diopside	*0.35*	*14.30*	*<DL*	*21.51*	*0.12*	*8.18*	*1.56*	*5.91*	*48.03*
Ilmenite	*0.02*	*0.72*	*0.01*	*<DL*	*0.75*	*41.82*	*48.04*	*0.23*	*0.03*

Nine measurements were made on each of alkali feldspar and plagioclase, and two measurements were made on clinoenstatite. Only 1 measurement was made on diopside and ilmenite, so no standard deviation was reported.

DL = Detection Limit.

Table 2

Local maxima (or minima) of major elements at interfaces of where attached objects fused to the larger host sample. These values are compared to the average (nominal) value of spot analyses adjacent to the interfaces, as determined by EPMA.

	Al_2O_3		MnO		FeO	
Object ID	Local Min (wt %)	Nominal (wt %)	Local Max (wt %)	Nominal (wt %)	Local Max (wt %)	Nominal (wt %)
B1	*11.62±0.06*	*13.02±1.05*	*0.10±0.01*	*0.09±0.02*	*3.13±0.10*	*2.37±0.13*
B2	*11.27±0.07*	*13.53±0.77*	*0.11±0.01*	*0.07±0.02*	*2.55±0.08*	*2.10±0.12*
B3	*12.67±0.07*	*13.06±0.69*	*0.11±0.01*	*0.08±0.02*	*3.17±0.10*	*2.40±0.14*
C1	*5.37±0.05*	*11.73±0.90*	*0.15±0.02*	*0.09±0.03*	*4.21±0.11*	*2.98±0.22*
C2	*7.05±0.06*	*13.09±0.90*	*0.18±0.02*	*0.10±0.03*	*4.10±0.12*	*2.91±0.18*
C3	*9.19±0.12*	*14.93±1.15*	*0.19±0.03*	*0.11±0.03*	*4.49±0.12*	*2.90±0.25*
D2	*12.57±0.14*	*15.60±1.39*	*0.18±0.03*	*0.12±0.03*	*4.24±0.13*	*3.29±0.28*
E1	*9.00±0.06*	*15.60±1.39*	*0.18±0.01*	*0.09±0.02*	*3.85±0.11*	*2.49±0.24*
E2	*11.39±0.06*	*13.30±1.32*	*0.17±0.01*	*0.10±0.02*	*3.71±0.11*	*2.46±0.20*

	MgO		CaO		TiO_2	
Object ID	Local Max (wt %)	Nominal (wt %)	Local Max (wt %)	Nominal (wt %)	Local Min (wt %)	Nominal (wt %)
B1	*0.71±0.01*	*0.49±0.05*	*3.07±0.03*	*1.76±0.38*	*0.24±0.01*	*0.27±0.03*
B2	*0.55±0.01*	*0.46±0.03*	*2.90±0.03*	*2.35±0.13*	*0.19±0.01*	*0.25±0.02*
B3	*0.65±0.01*	*0.49±0.03*	*2.67±0.03*	*2.07±0.34*	*0.25±0.01*	*0.27±0.02*
C1	*0.73±0.03*	*0.65±0.12*	*2.93±0.04*	*1.90±0.28*	*0.19±0.02*	*0.30±0.04*
C2	*0.34±0.02*	*0.48±0.06*	*1.76±0.04*	*2.39±0.47*	*0.15±0.02*	*0.26±0.02*
C3	*0.73±0.03*	*0.56±0.06*	*2.74±0.04*	*1.74±0.26*	*0.23±0.02*	*0.29±0.05*
D2	*0.82±0.03*	*0.73±0.15*	*2.21±0.04*	*1.86±0.27*	*0.29±0.02*	*0.37±0.08*
E1	*0.79±0.02*	*0.51±0.11*	*2.37±0.02*	*1.06±0.17*	*0.21±0.01*	*0.31±0.04*
E2	*0.93±0.02*	*0.52±0.06*	*3.11±0.03*	*1.74±0.31*	*0.25±0.01*	*0.28±0.03*

Local minima and maxima are shown with measurement uncertainties on individual spot anlayses.
Nominal values are the averages of 6 spot anlayses adjacent to the interface (3 on either side of the interface).
Nominal values are shown as averages ± one standard deviation.

Table 3

Isotope ratio variation across the interface of Object C1, along the profile shown in Figure 7.

Distance (μm)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0.00	*0.0989*	*0.0001*	*0.1318*	*0.0001*	*0.000117*	*0.000003*	*6.44*	*0.35*
0.78	*0.0994*	*0.0001*	*0.1286*	*0.0001*	*0.000140*	*0.000003*	*6.88*	*0.32*
1.56	*0.0971*	*0.0001*	*0.1236*	*0.0001*	*0.000132*	*0.000003*	*6.36*	*0.30*
2.33	*0.0940*	*0.0001*	*0.1186*	*0.0001*	*0.000135*	*0.000003*	*6.66*	*0.31*
3.11	*0.0914*	*0.0001*	*0.1150*	*0.0001*	*0.000127*	*0.000003*	*6.52*	*0.30*
3.89	*0.0891*	*0.0001*	*0.1128*	*0.0001*	*0.000132*	*0.000003*	*5.97*	*0.26*
4.67	*0.0872*	*0.0001*	*0.1111*	*0.0001*	*0.000132*	*0.000003*	*7.49*	*0.35*
5.45	*0.0866*	*0.0001*	*0.1110*	*0.0001*	*0.000136*	*0.000003*	*6.14*	*0.27*
6.22	*0.0909*	*0.0001*	*0.1183*	*0.0001*	*0.000212*	*0.000004*	*6.68*	*0.24*
7.00	*0.1009*	*0.0001*	*0.1380*	*0.0001*	*0.000411*	*0.000006*	*7.14*	*0.19*
7.78	*0.1164*	*0.0001*	*0.1701*	*0.0001*	*0.000811*	*0.000008*	*7.73*	*0.15*
8.56	*0.1251*	*0.0001*	*0.1910*	*0.0001*	*0.000943*	*0.000009*	*7.25*	*0.13*
9.34	*0.1098*	*0.0001*	*0.1688*	*0.0001*	*0.000543*	*0.000007*	*6.74*	*0.16*
10.11	*0.0997*	*0.0001*	*0.1476*	*0.0001*	*0.000367*	*0.000005*	*6.35*	*0.18*
10.89	*0.0905*	*0.0001*	*0.1299*	*0.0001*	*0.000303*	*0.000005*	*6.81*	*0.21*
11.67	*0.0810*	*0.0001*	*0.1114*	*0.0001*	*0.000227*	*0.000004*	*6.58*	*0.24*
12.45	*0.0757*	*0.0001*	*0.0983*	*0.0001*	*0.000170*	*0.000004*	*6.60*	*0.28*
13.23	*0.0736*	*0.0001*	*0.0928*	*0.0001*	*0.000142*	*0.000003*	*5.77*	*0.26*
14.00	*0.0742*	*0.0001*	*0.0918*	*0.0001*	*0.000125*	*0.000003*	*6.12*	*0.28*
14.78	*0.0759*	*0.0001*	*0.0934*	*0.0001*	*0.000120*	*0.000003*	*5.29*	*0.23*

*Measurement uncertainty

Summary of figures and tables for Electronic Annexes 1-5

Figures:

Figure EA1a: BSE image of Object A1 fused to Sample A.

Figure EA1b: BSE image of Sample A, featuring a silica-rich inclusion in the center-right of the image.

Figure EA2: BSE image of Objects B1, B2, and B3 and the larger host object to which they are fused.

Figure EA3: BSE image of Objects C1, C2, and C3 and the larger host object to which they are fused.

Figure EA4: BSE image of Objects D1 and D2, and the larger host object to which they are fused.

Figure EA5: BSE image of Objects E1 and E2, and the larger host object to which they are fused.

Figure EA6: BSE images of two characteristic, mm-scale environmental grains proximate to ground zero of this nuclear test.

Figure EA7: EDS maps for Al, Ca, Fe, and Na of Object A1 are presented, as no EPMA maps were acquired for this object.

Figure EA8: WDS maps for Al, Ca, Fe, and Na of Objects B1, B2, and B3 are presented.

Figure EA9: WDS maps for Al, Ca, Fe, and Na of Objects C1 and C2 are presented.

Figure EA10: WDS maps for Al, Ca, Fe, and Na of Object C3 are presented.

Figure EA11: WDS maps for Al, Ca, Fe, and Na of Objects D1 and D2 are presented.

Figure EA12: WDS maps for Al, Ca, Fe, and Na of Object E1 are presented. The Na map clearly shows a layer of Na surrounding the smaller attached objects.

Figure EA13: WDS maps for Al, Ca, Fe, and Na of Object E2 are presented.

Figure EA14: Isotope ratio images of $^{56}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object A1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (bottom left to top right).

Figure EA15: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object B1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (from bottom left to top right).

Figure EA16: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object B2 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (bottom left to top right).

Figure EA17: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object B3 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (top left to bottom right).

Figure EA18: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object C1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (bottom right to top left).

Figure EA19: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object C2 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (top left to bottom right).

Figure EA20: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object D1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (top to bottom of the image).

Figure EA21: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object D2 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (top left to bottom right).

Figure EA22: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object E1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (bottom left to top right).

Figure EA23: (a) EPMA analyses for Na_2O on homogenized Lake County obsidian glass for spot sizes ranging from 20 microns down to the focused probe diameter (<<1 micron), showing a systematic decrease in concentration with increasing probe diameter. (b) EPMA analyses for K_2O using the same parameters, showing no discernible volatilization trend.

Tables:

Table EA1.1: Summary of analytical techniques applied to each of 11 fallout objects and soil samples collected proximate to ground zero.

Table EA1.2: Summary of U100 and U200 standards measurements as acquired by nanoSIMS.

Table EA2.1: Electron probe microanalysis spots across interfaces for 9 agglomerated aerodynamic fallout glass objects, presented as major element oxides.

Table EA3.1: Electron probe microanalysis spots on feldspars in soil collected proximate to ground zero, with cation balance and end member calculations.

Table EA3.2: Electron probe microanalysis spots on pyroxenes in soil collected proximate to ground zero, with cation balance and end member calculations.

Table EA4.1: Energy dispersive x-ray spectroscopy spots across interfaces for 7 agglomerated aerodynamic fallout glass objects.

Table EA5.1: Isotope ratios from interface traverse across Object A1 as determined from nanoSIMS ion image.

Table EA5.2: Isotope ratios from interface traverse across Object B1 as determined from nanoSIMS ion image.

Table EA5.3: Isotope ratios from interface traverse across Object B2 as determined from nanoSIMS ion image.

Table EA5.4: Isotope ratios from interface traverse across Object B3 as determined from nanoSIMS ion image.

Table EA5.5: Isotope ratios from interface traverse across Object C1 as determined from nanoSIMS ion image.

Table EA5.6: Isotope ratios from interface traverse across Object C2 as determined from nanoSIMS ion image.

Table EA5.7: Isotope ratios from interface traverse across Object D1 as determined from nanoSIMS ion image.

Table EA5.8: Isotope ratios from interface traverse across Object D2 as determined from nanoSIMS ion image.

Table EA5.9: Isotope ratios from interface traverse across Object E1 as determined from nanoSIMS ion image.

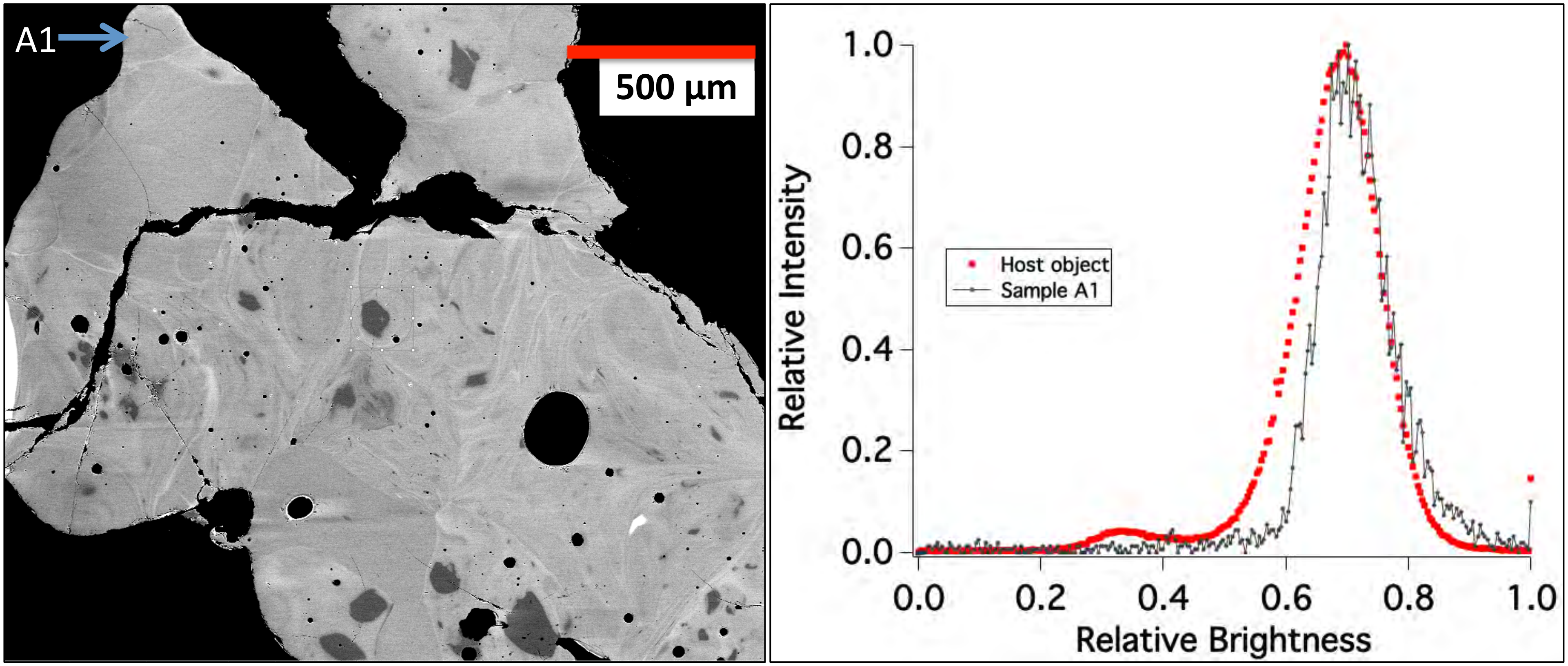


Figure EA1a: BSE image of Object A1 and the larger host object to which it is fused. The plot on the right hand side shows the relative contrast variation within the larger host object (red) superimposed over the contrast variation of smaller fused Object A1 (gray). As seen from the plot, there is slightly more variation seen in the larger object, and there is a notable secondary peak at ~0.3 relative brightness, which is likely highlighting the dark, silica-rich inclusions in the BSE image, indicating heterogeneity not seen in Object A1.

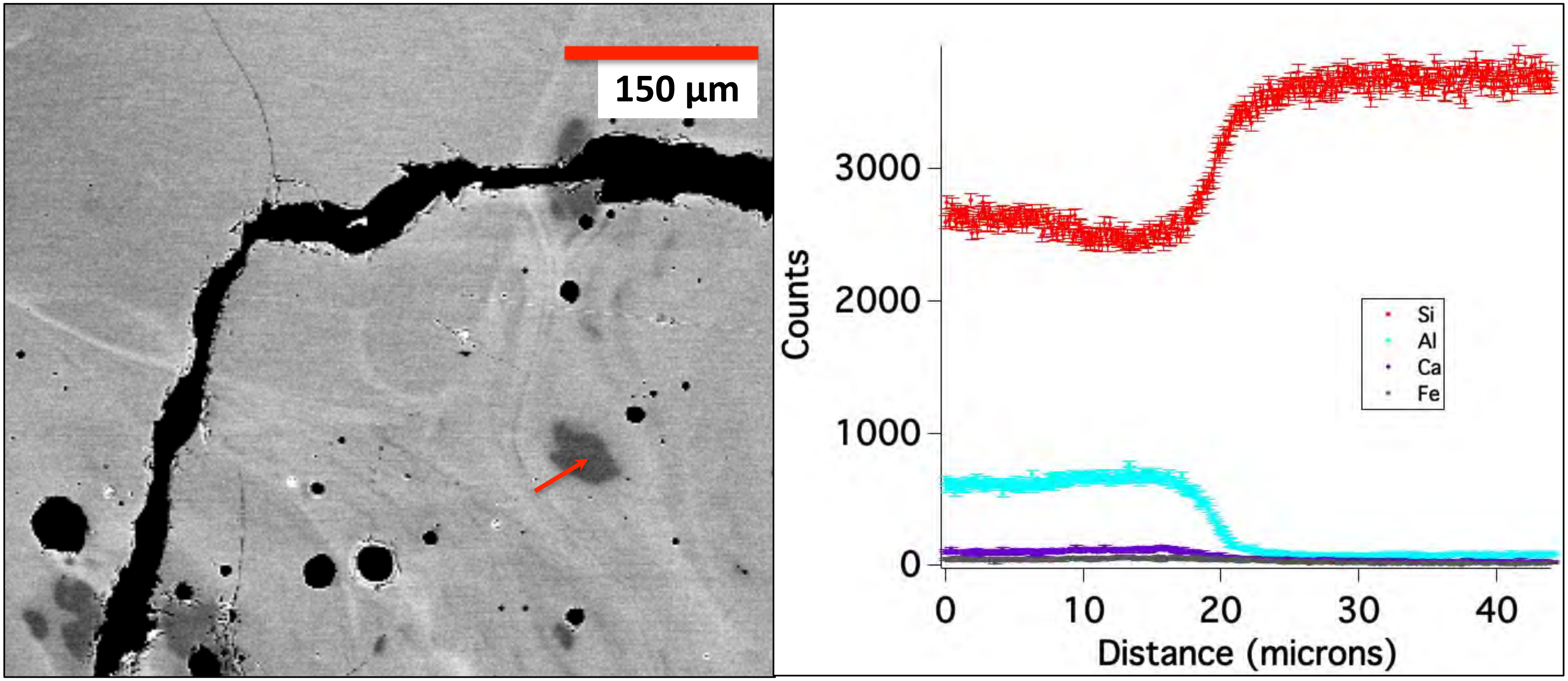


Figure EA1b: BSE image of the host object of Sample A, featuring a silica-rich inclusion in the center-right of the image. The red arrow indicates the location and direction of an EDS line traverse that was acquired to qualitatively understand compositional variation across one of these features. The results from the line scan are shown in the right frame, for Si, Al, Fe, and Ca. Uncertainties are based solely on counting statistics.

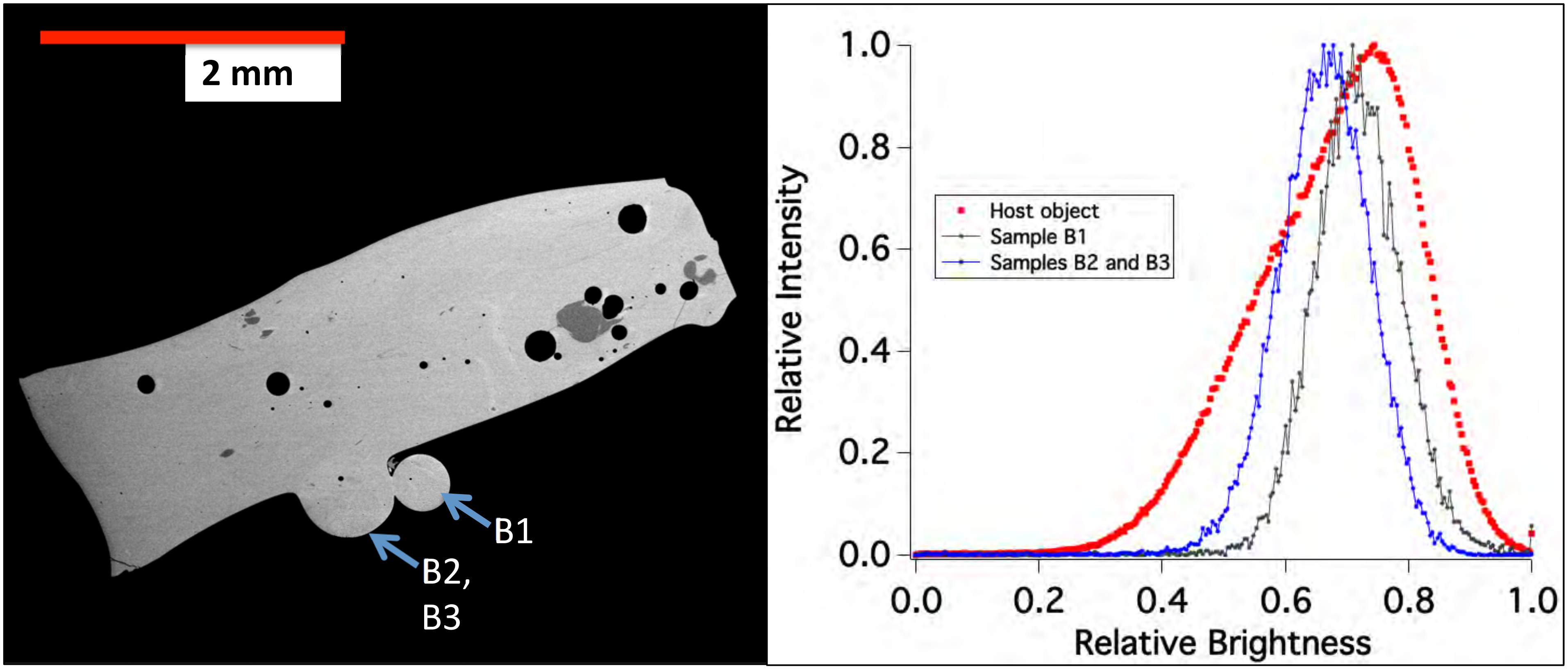


Figure EA2: BSE image of Objects B1, B2, and B3 and the larger host object to which they are fused. The larger host object appears to show a larger range in contrast variation than the smaller attached spherules. However, this could be due to a systematic decrease in brightness towards the left side of the object, which may be due to topographical variation.

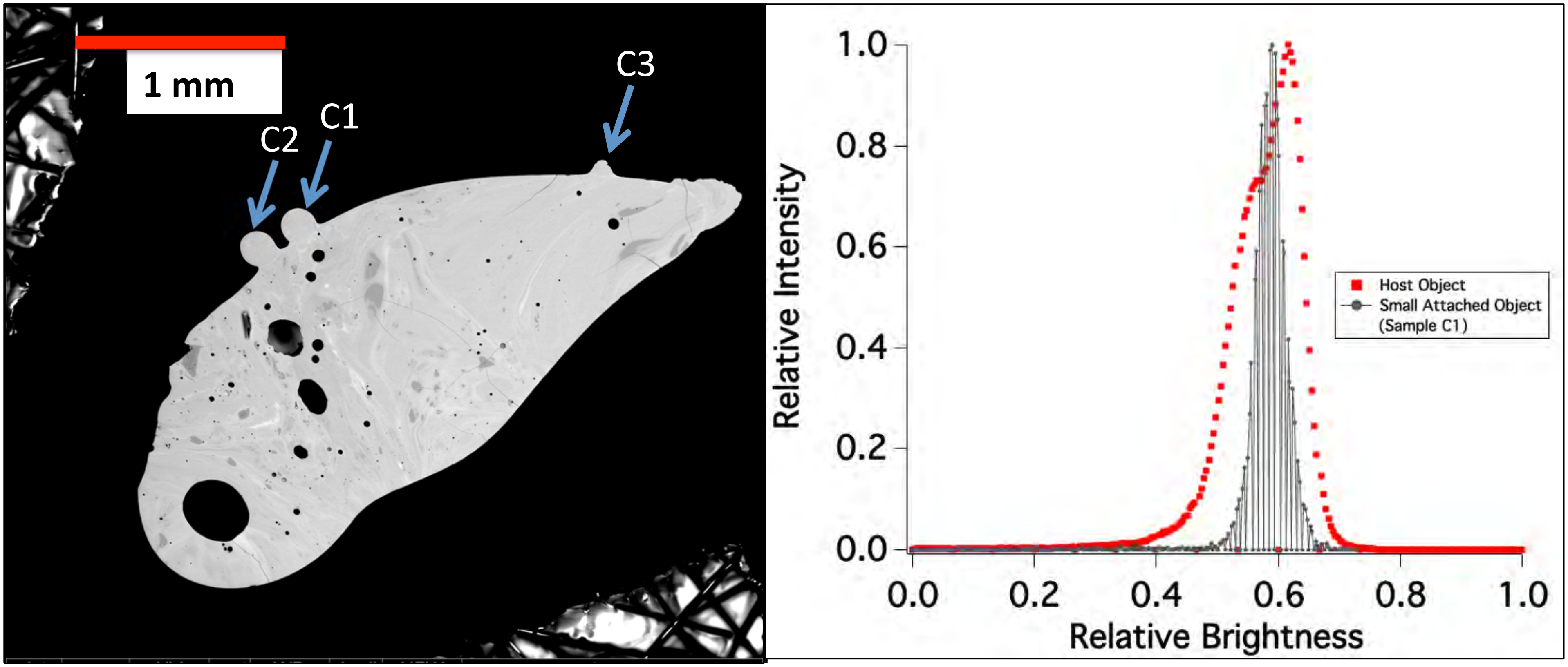


Figure EA3: BSE image of Objects C1, C2, and C3 and the larger host object to which they are fused. The contrast variation plot on the right shows Object C1 (gray) in comparison to the larger host. As seen in the plot, there is a much greater degree of contrast variation in the larger host object, indicating greater compositional heterogeneity.

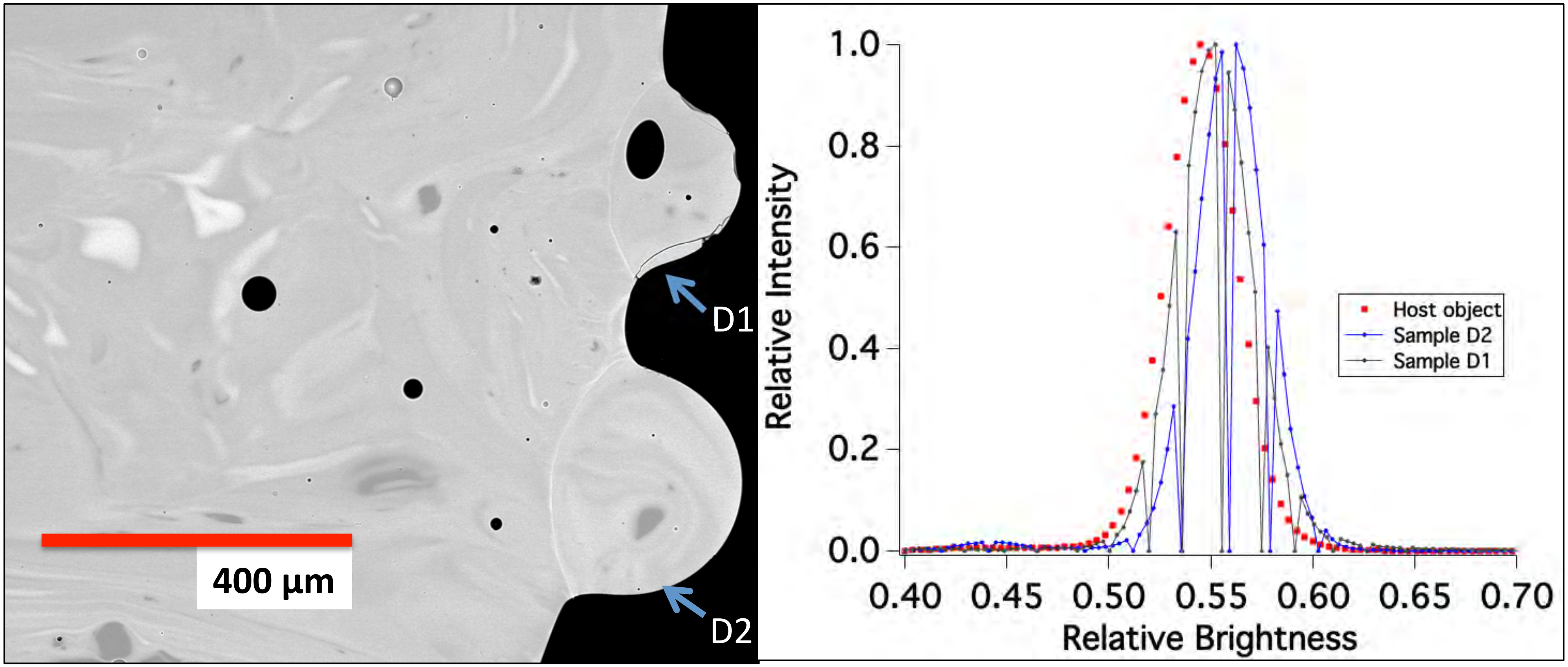


Figure EA4: BSE image of Objects D1 and D2, and the larger host object to which they are fused. The plot on the right shows Object D1 and D2 (gray) in comparison to the larger host object, which shows a similar degree of compositional variation based on the contrast variation.

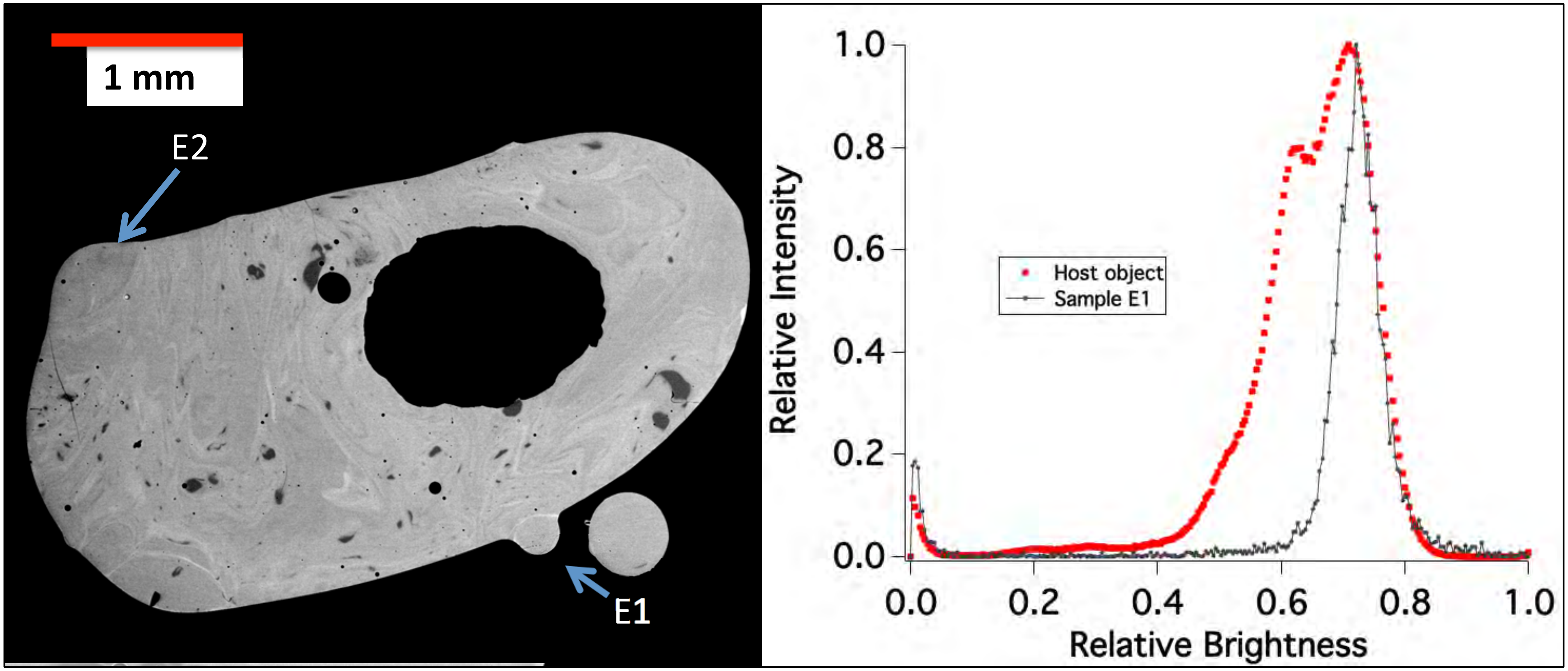


Figure EA5: BSE image of Object E1 and E2, and the larger host object to which they are fused. The plot on the right shows that attached Object E1 has a much narrower range of contrast variation relative to the larger attached object, indicative that the smaller spherule is considerably less heterogeneous compositionally.

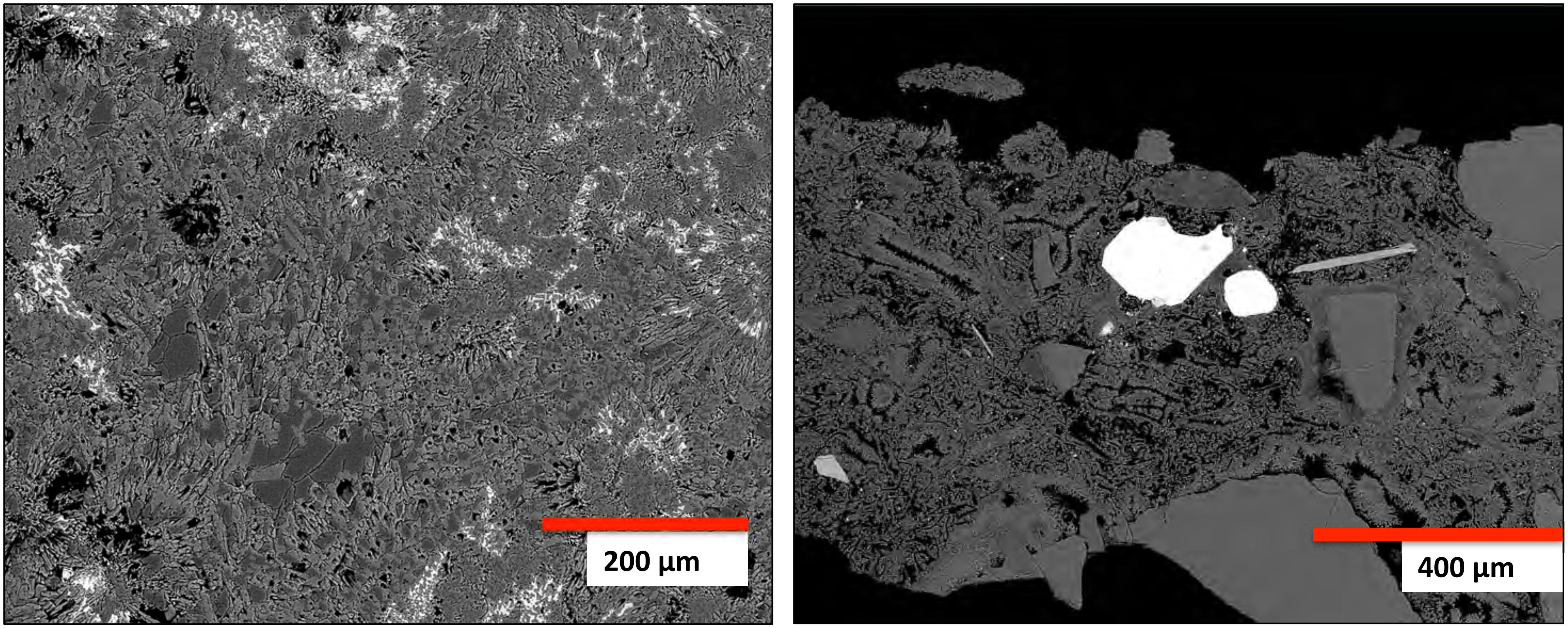


Figure EA6: BSE images of two characteristic, mm-scale environmental grains proximate to ground zero of this nuclear test. In the left image, the darkest gray regions are quartz minerals, light gray is feldspar of varying composition, and the bright regions are high-Fe bearing minerals. In the right image, the central, bright minerals are identified as ilmenite.

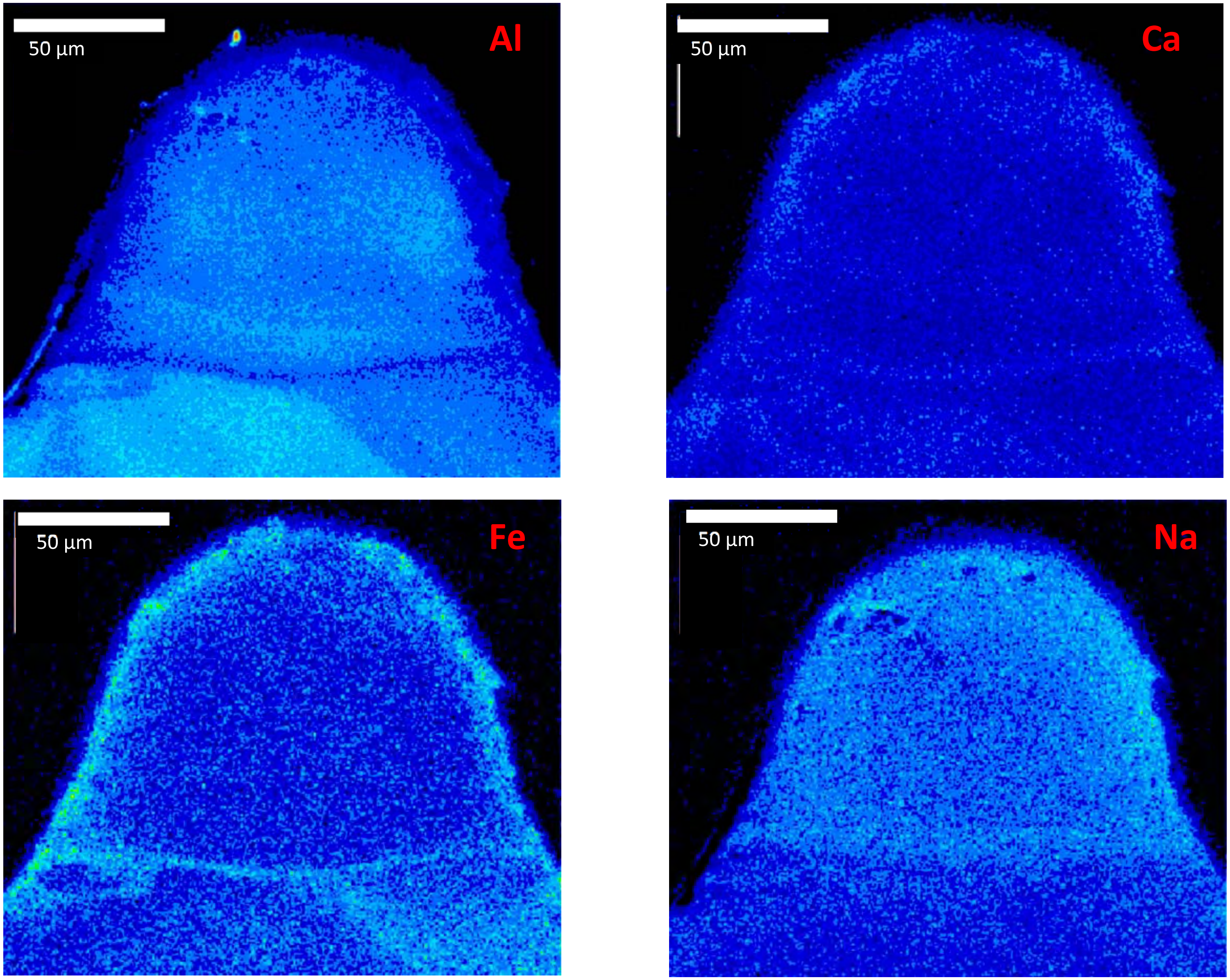


Figure EA7: EDS maps for Al, Ca, Fe, and Na of Object A1 are presented, as no EPMA maps were acquired for this sample. The Fe, Ca, and Na maps show distinct enrichment around the perimeter, while Al shows characteristic depletion in the corresponding location.

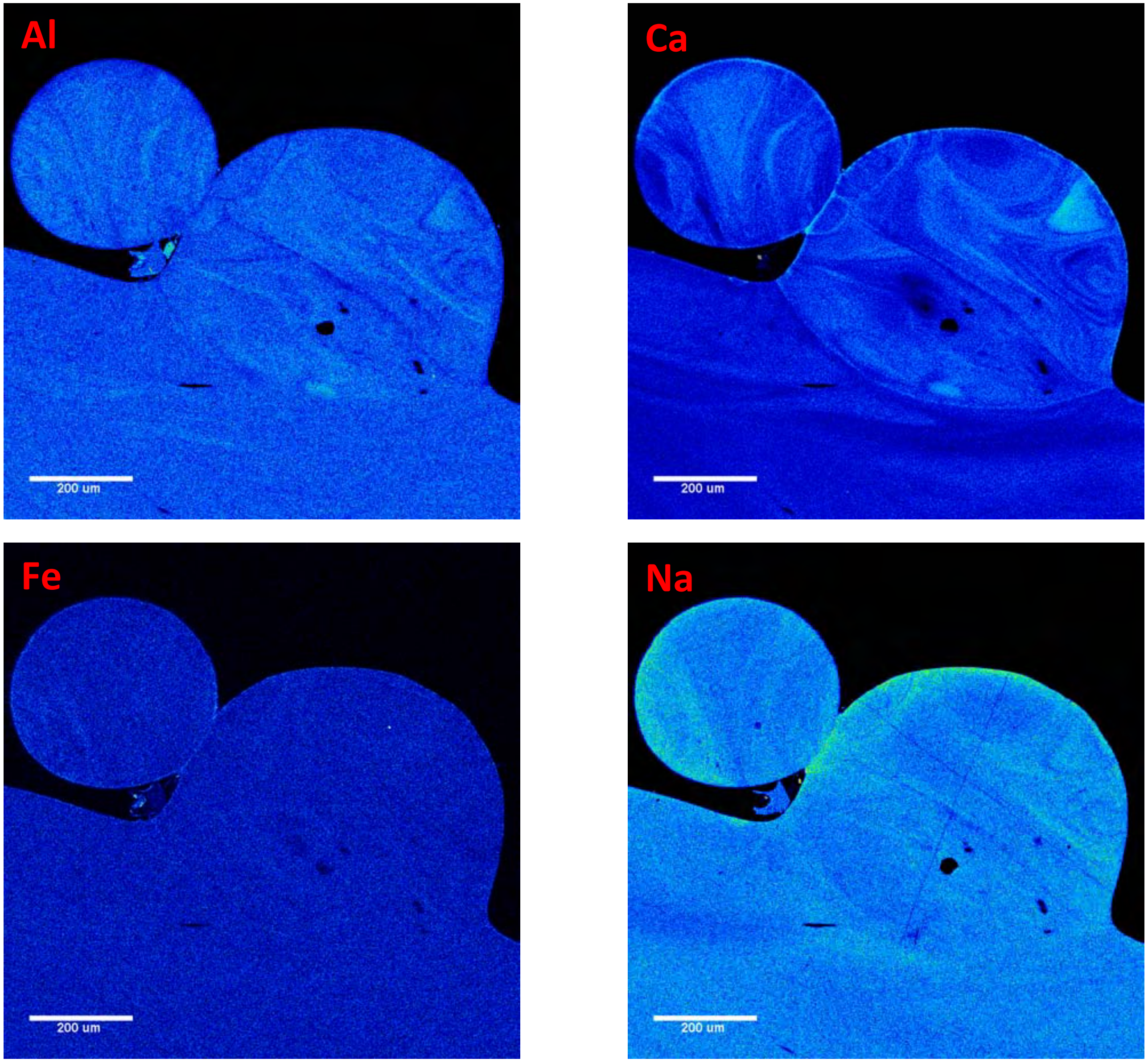


Figure EA8: WDS maps for Al, Ca, Fe, and Na of Objects B1, B2, and B3 are presented. The Ca and Na maps show enrichment at interfaces, while Al shows characteristic depletion. Fe enrichment is not as distinct, given the lower count rate in mapping.

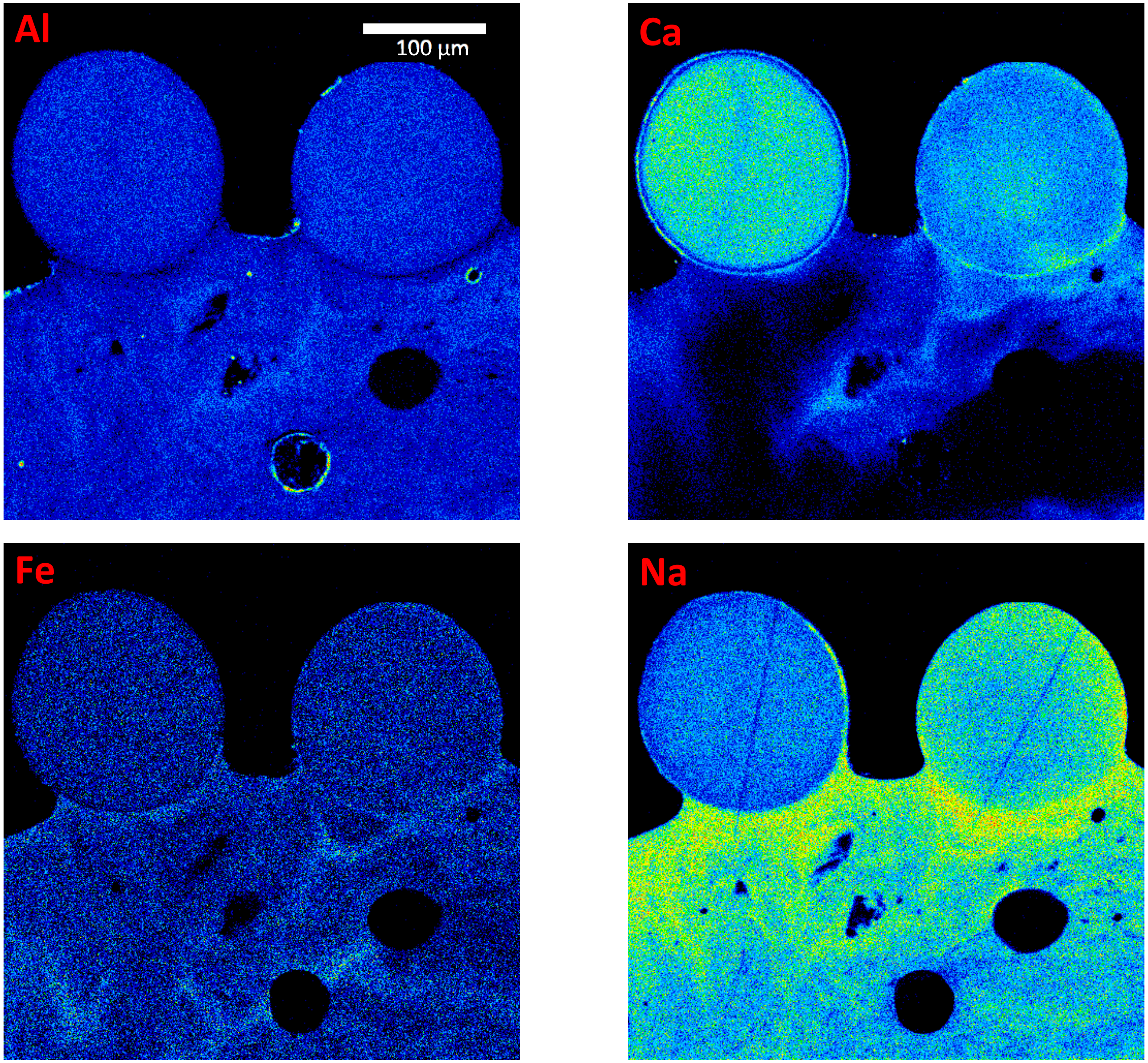


Figure EA9: WDS maps for Al, Ca, Fe, and Na of Objects C1 and C2 are presented. This figure is identical to Figure 4, but is presented here for completion of the EPMA map catalogue, and comparison to other supplemental figures.

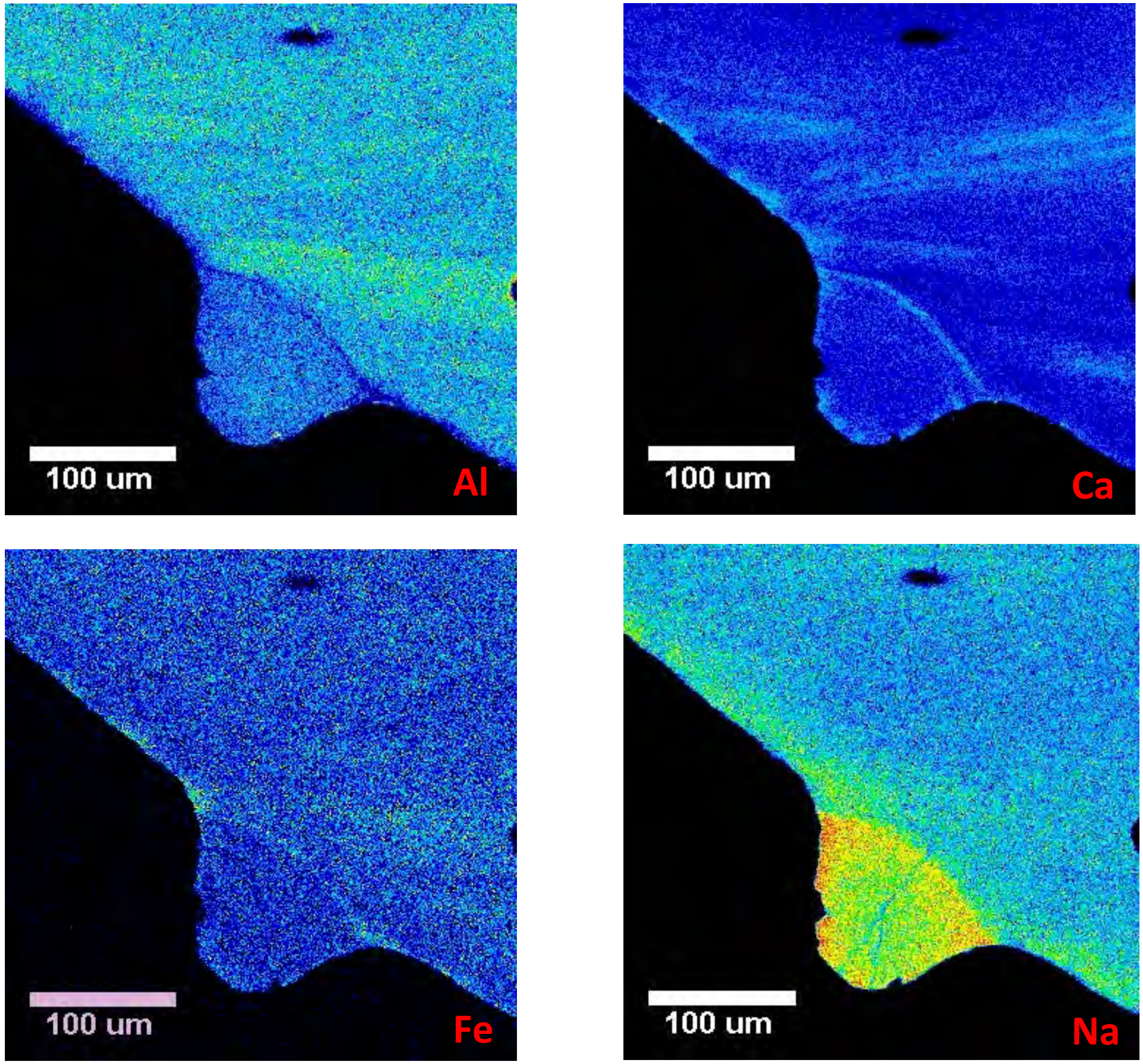


Figure EA10: WDS maps for Al, Ca, Fe, and Na of Object C3 are presented. The major element maps follow the same trend of enrichments and depletions for the given elements, but has a notable enrichment in Na as compared to the larger host object.

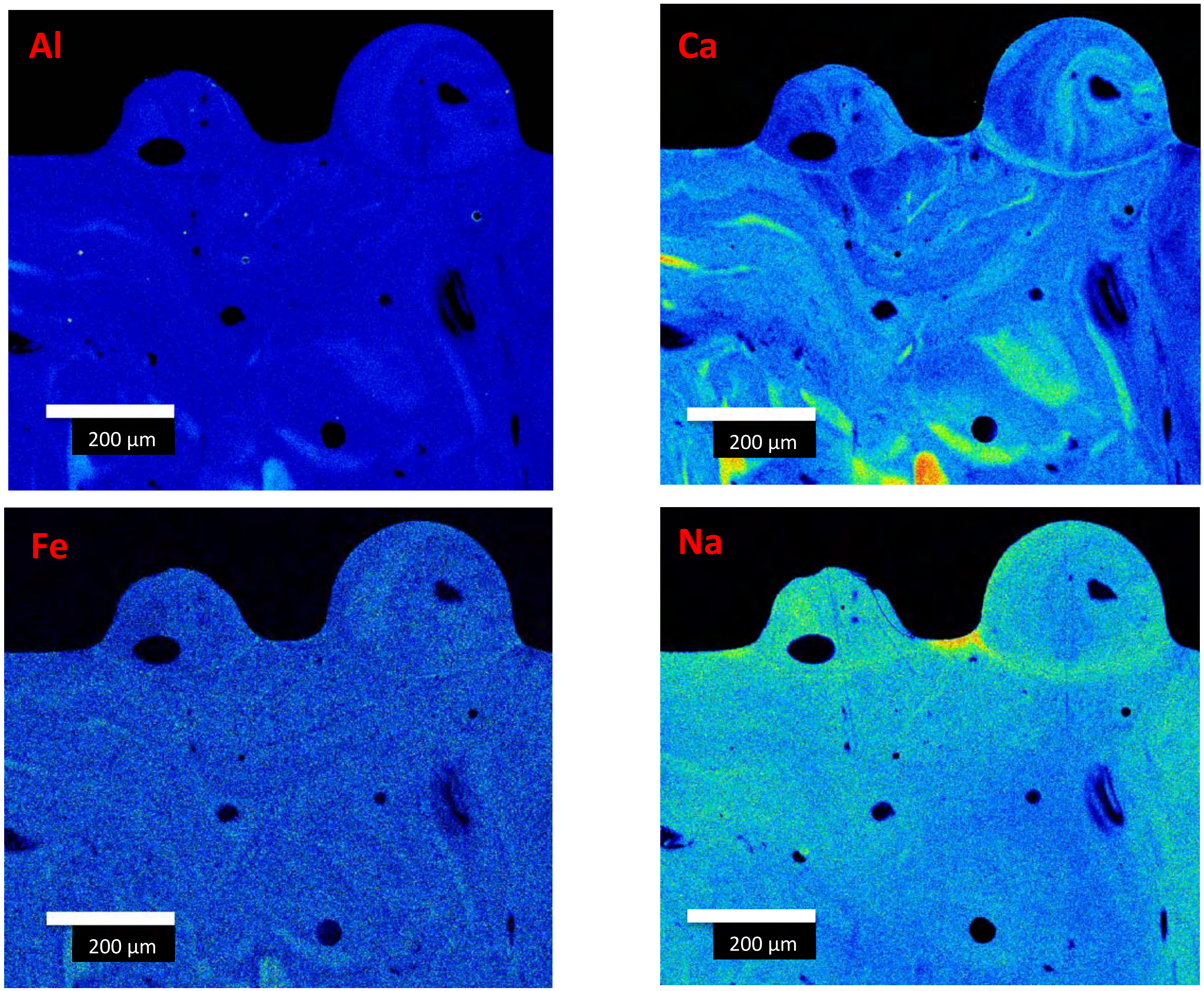


Figure EA11: WDS maps for Al, Ca, Fe, and Na of Objects D1 and D2 are presented. As seen in the Ca map, there is a high degree of compositional variability, especially in the larger host object.

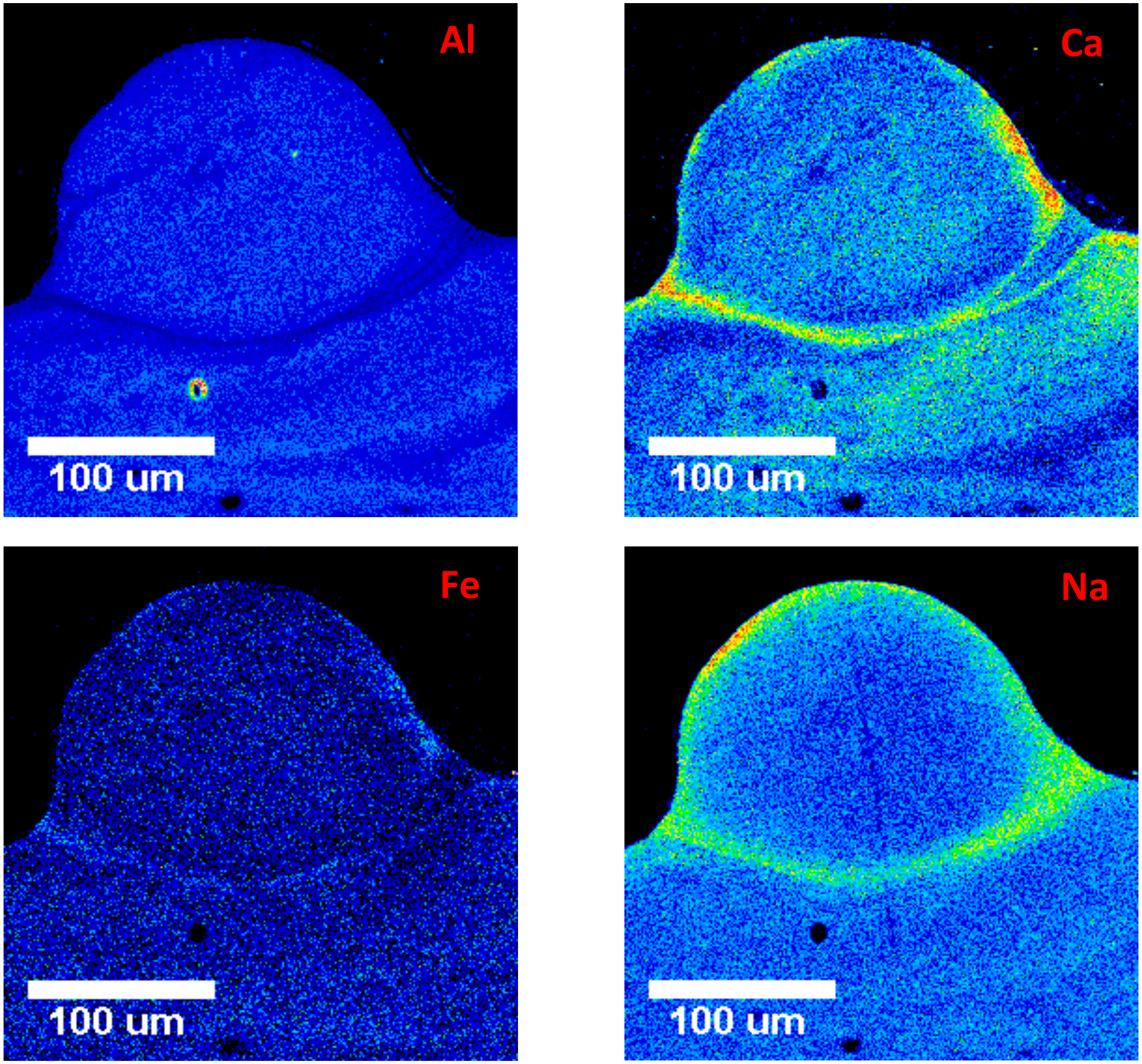


Figure EA12: WDS maps for Al, Ca, Fe, and Na of Object E1 are presented. The Na map clearly shows a layer of Na surrounding the smaller attached objects. Further, in the Ca map, it can be seen that there may be another attached object between the spherule and the host object.

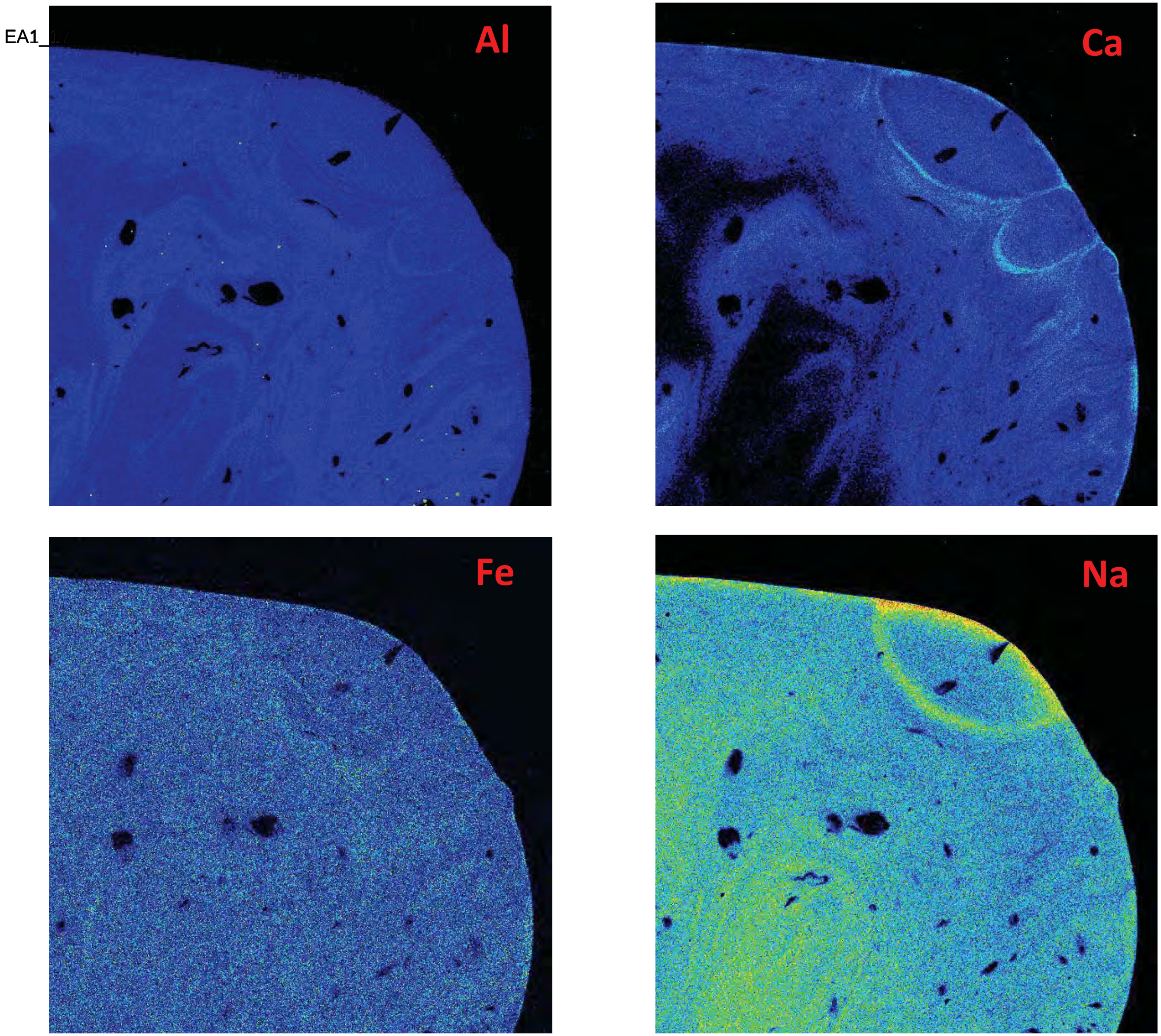


Figure EA13: WDS maps for Al, Ca, Fe, and Na of Object E2 are presented. The Na map clearly shows a layer of Na surrounding the smaller attached object, and is incorporated into the larger host. The Ca map outlines another object adjacent to it, and also incorporated into the host.

Sample A1

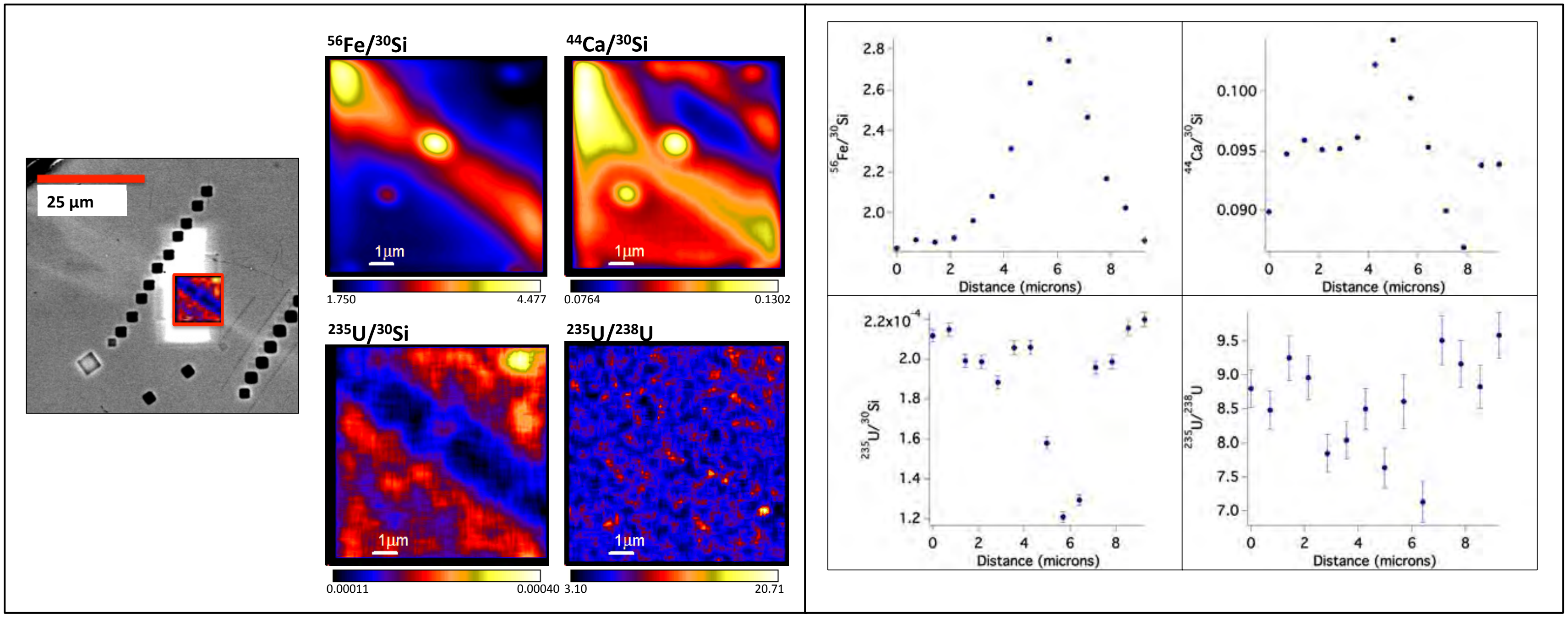


Figure EA14: Isotope ratio images of $^{56}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object A1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (bottom left to top right). It can clearly be seen that there is an enrichment of Fe and Ca at the interface (as seen in Figure EA7). The $^{235}U/^{30}Si$ image shows a depletion of U co-located with the Fe enrichment; however, there is a region of relatively high U located approximately 4 microns along the traverse. The $^{235}U/^{238}U$ does not show discernable variation, but does indicate a high level of isotopic enrichment of ^{235}U. At the very left, a BSE image is shown of the interface, with the $^{235}U/^{30}Si$ image superimposed at the location of the raster. **See Electronic Annex 5 for full NanoSIMS dataset for Figures EA14-22.**

Sample B1

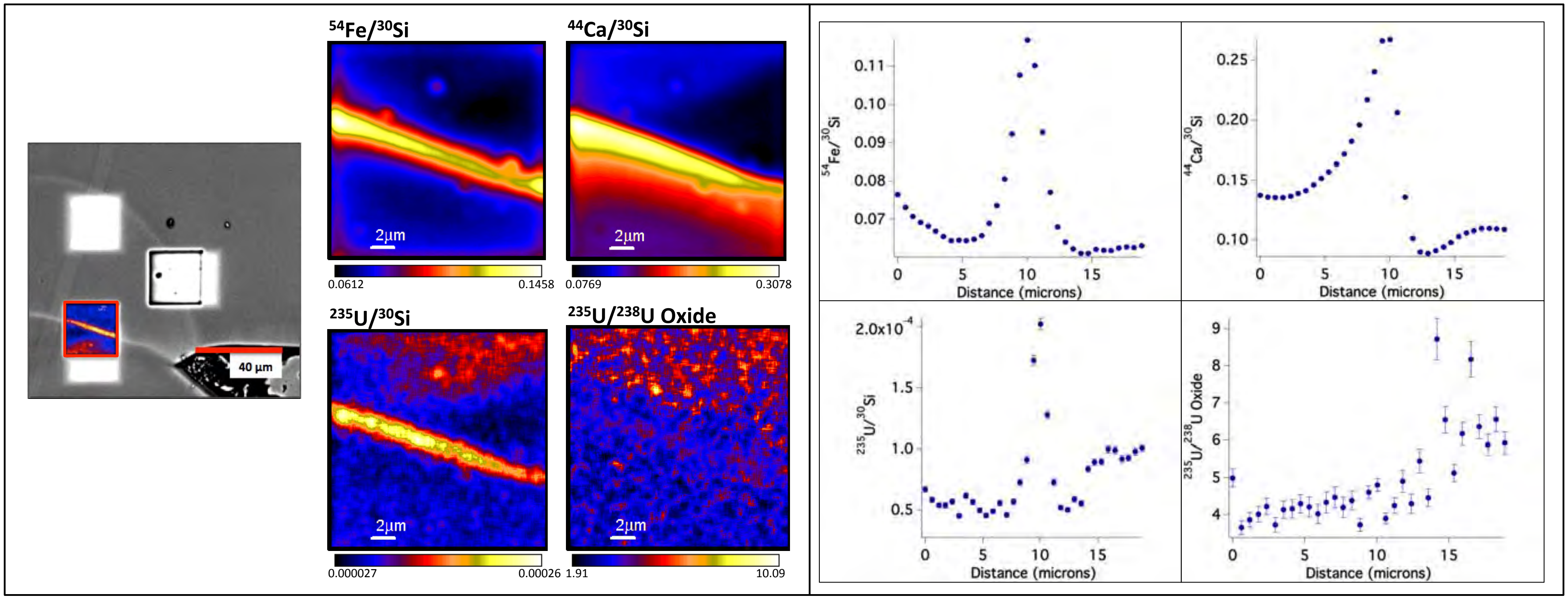


Figure EA15: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object B1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (from bottom left to top right). There is characteristic enrichment of Fe, Ca, and ^{235}U, all normalized to ^{30}Si. The $^{235}U/^{238}U$ oxide image is given here, as the oxide ion yield is substantially higher than the individual ions of ^{235}U and ^{238}U. There is a higher $^{235}U/^{238}U$ oxide ratio in one object with respect to the other, but no discernable increase in ratio at the interface itself.

Sample B2

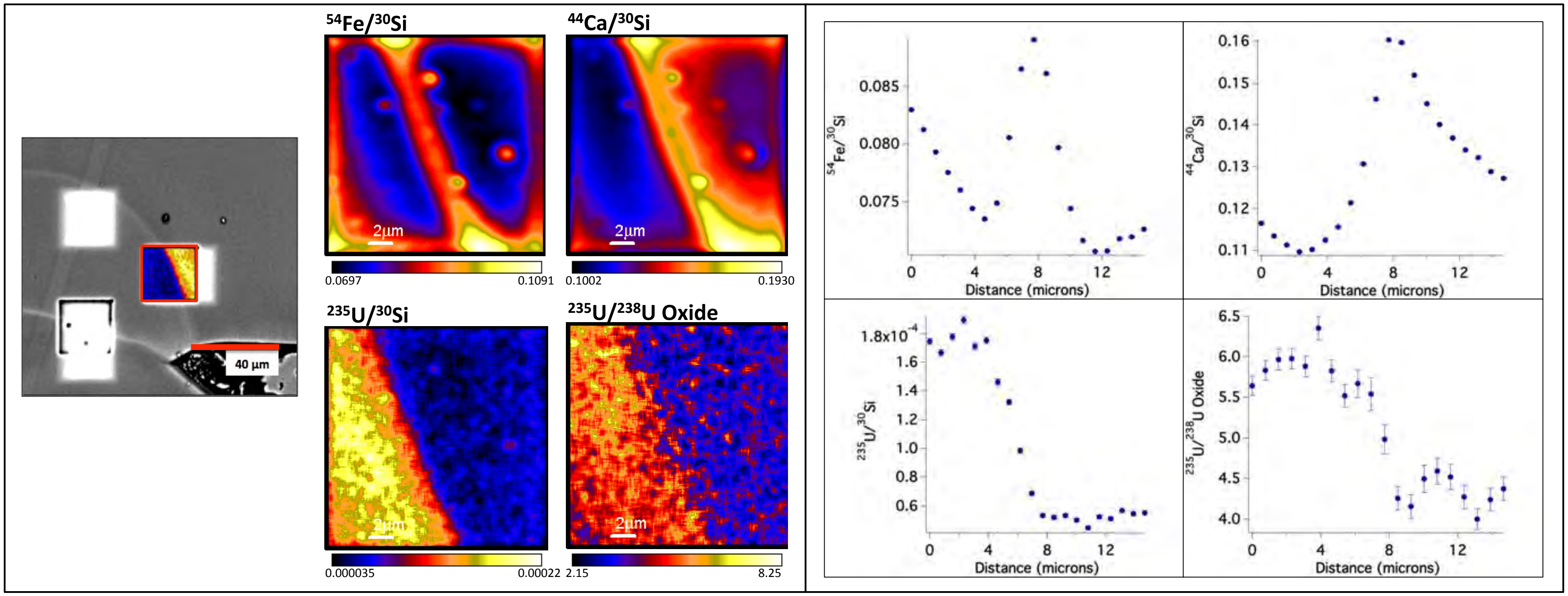


Figure EA16: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object B2 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (bottom left to top right). While there is a characteristic enrichment of Fe and Ca at the interface, there is no indication of this pattern in ^{235}U at the interface. This interface is discussed in detail in the paper (Figure 9). Also of note, the $^{235}U/^{238}U$ oxide variation very clearly corresponds to the $^{235}U/^{30}Si$ ratio.

Sample B3

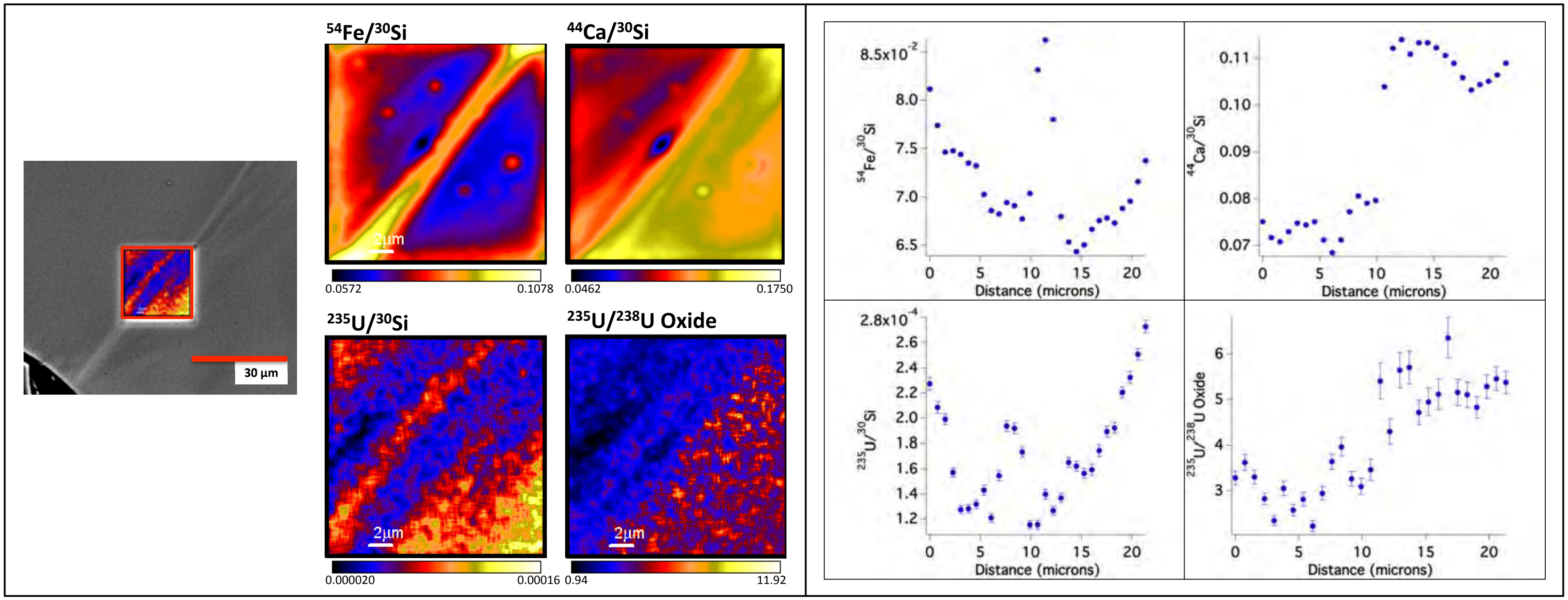


Figure EA17: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object B3 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (top left to bottom right). As also seen in Object A1, there is a region of depletion adjacent to a region of relative enrichment in the $^{235}U/^{30}Si$ image and profile. This interface is discussed in more detail in the paper (Figure 11). As in Figure EA17, the $^{235}U/^{238}U$ oxide variation very clearly corresponds to the $^{235}U/^{30}Si$ ratio.

Sample C1

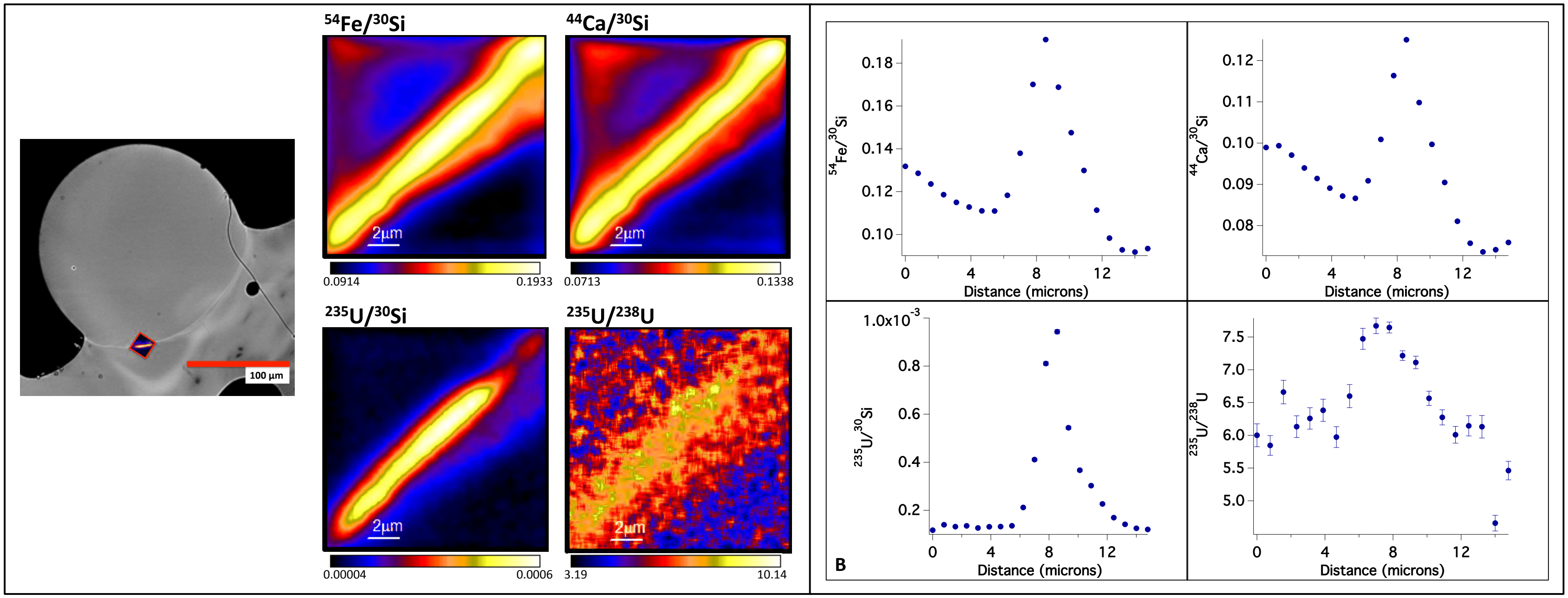


Figure EA18: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object C1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (bottom right to top left). This figure is identical to Figure 7 and is discussed in detail in the body of the paper. The figure is provided again here to complete the NanoSIMS ion image catalogue of samples and for comparison to other supplemental figures.

Sample C2

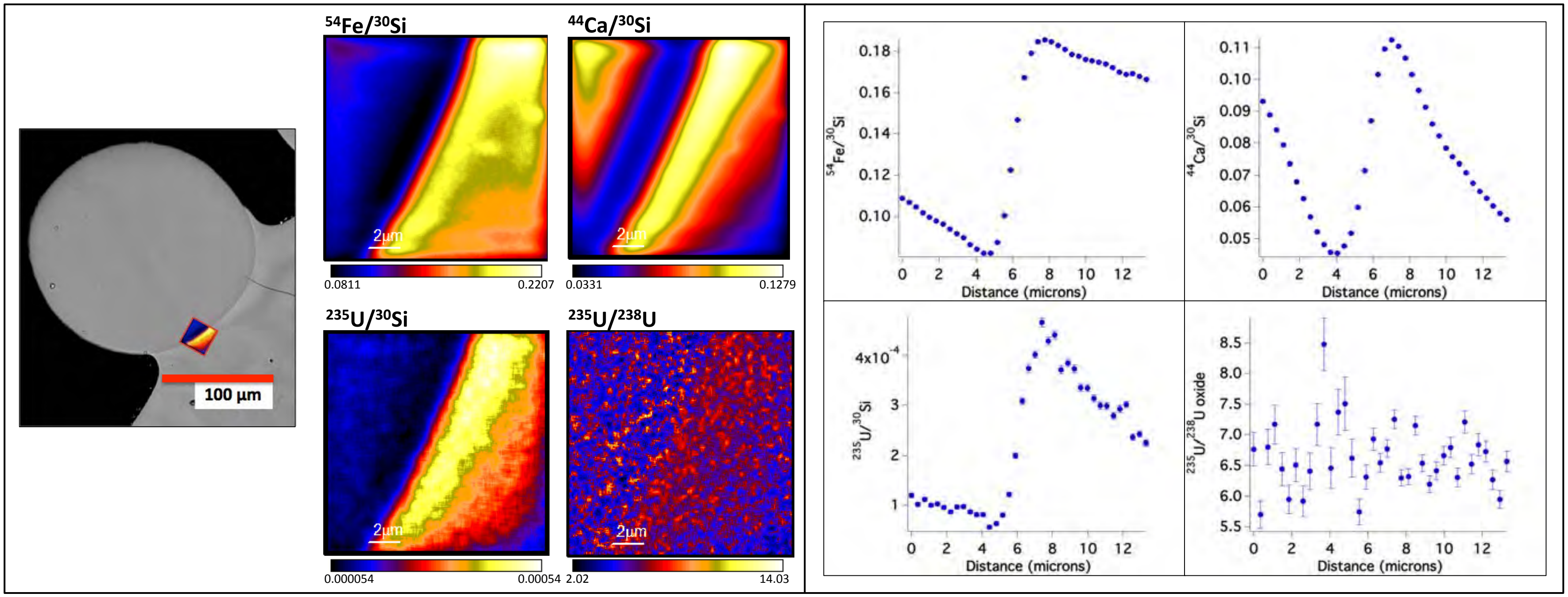


Figure EA19: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object C2 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (top left to bottom right). This interface is of particular interest given the distinct skewing of the isotope ratio profiles towards the larger host object. Further, the $^{44}Ca/^{30}Si$ ion ratio image and profile correspond with the high-Ca layer around a region of lower relative Ca concentration in the EPMA map seen in Figure EA9.

Sample D1

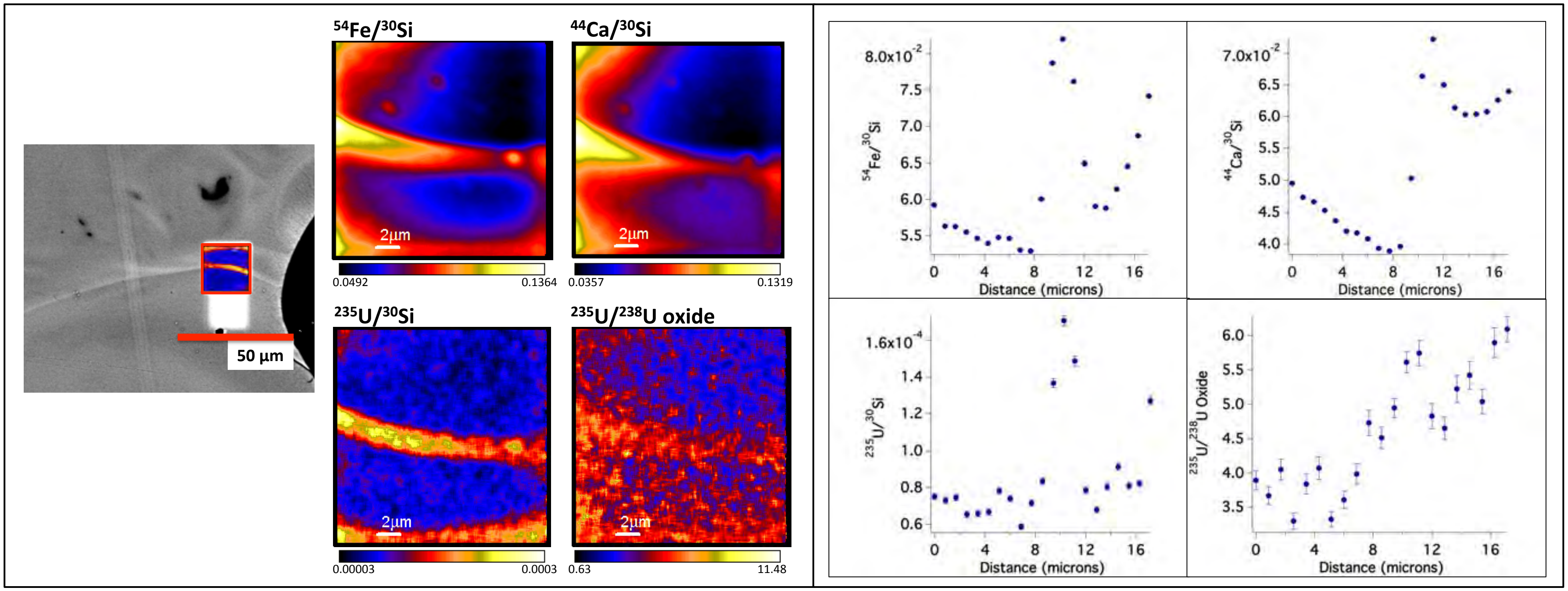


Figure EA20: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object D1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (top to bottom of the image). This sample exemplifies characteristic profiles of every isotope ratio.

Sample D2

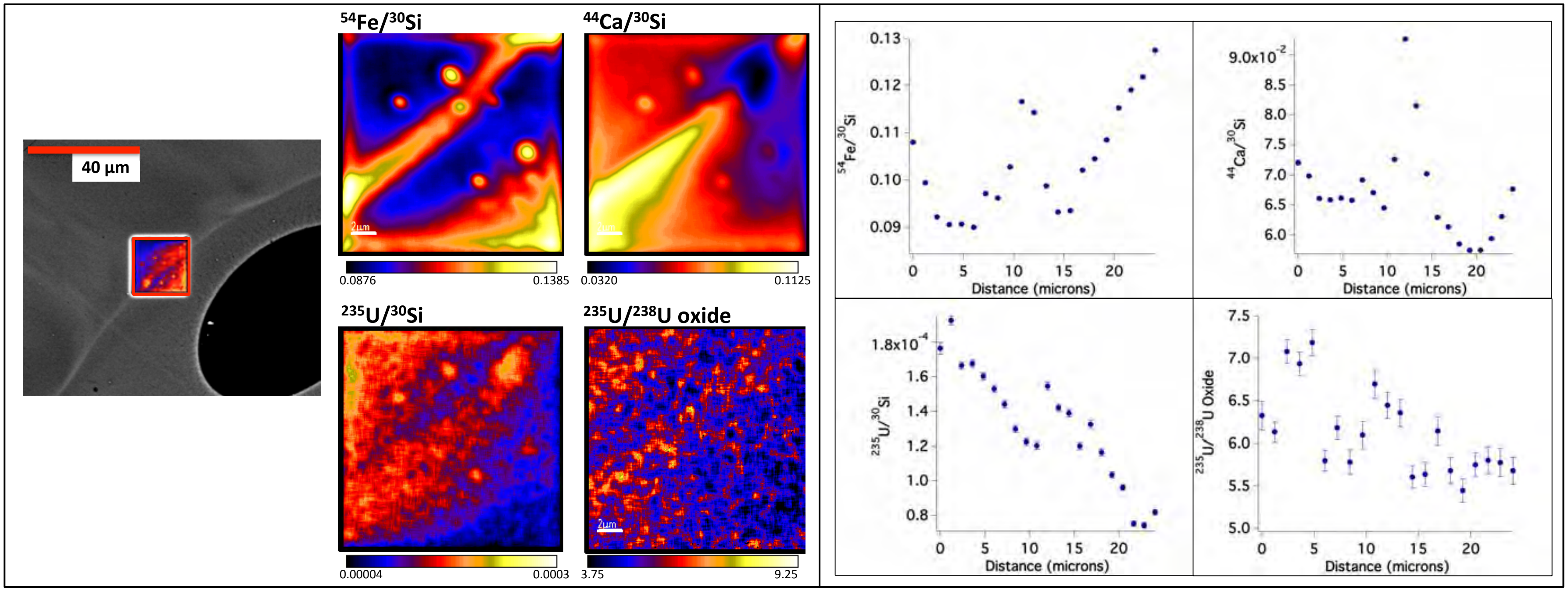


Figure EA21: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object D2 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (top left to bottom right). The $^{44}Ca/^{30}Si$ image shows what may be a low-Ca inclusion or void at the interface. The $^{235}U/^{30}Si$ ratio image also shows a less clear pattern of ^{235}U variation across the interface; however, this may be due to topography variation given its proximity to the large void seen in the BSE image (far left).

Sample E1

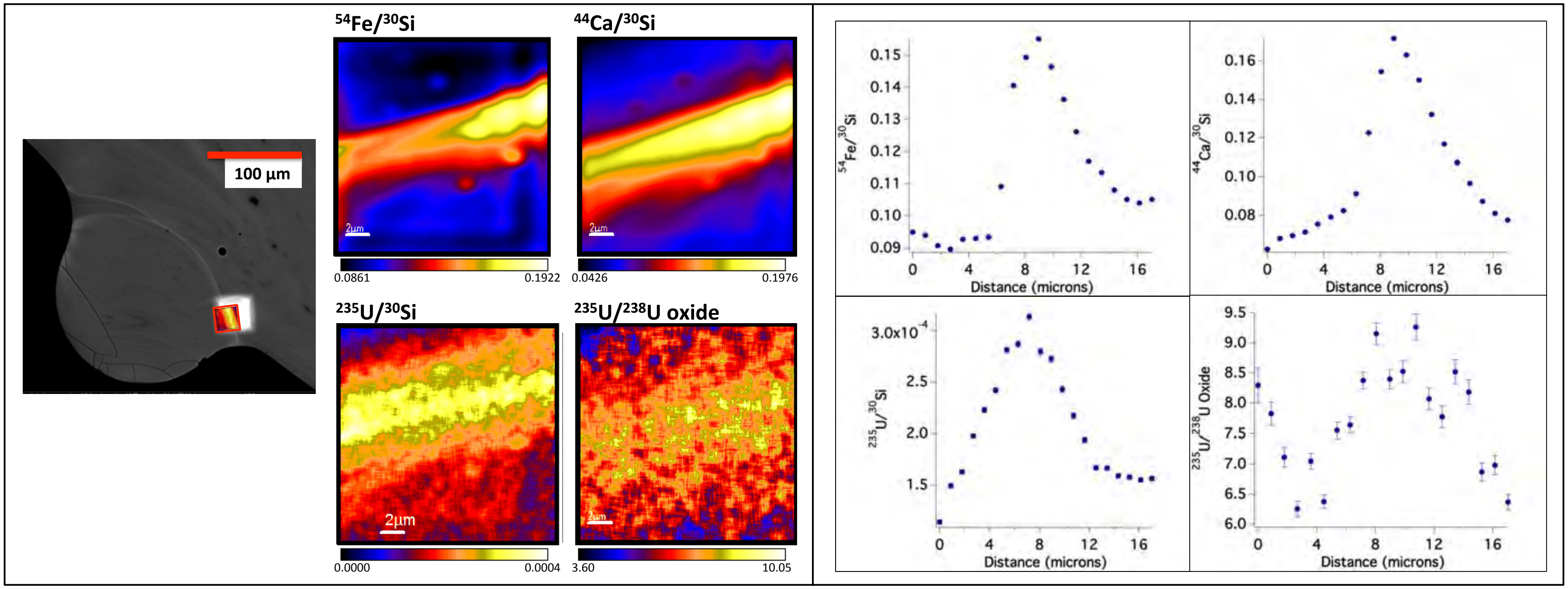


Figure EA22: Isotope ratio images of $^{54}Fe/^{30}Si$, $^{44}Ca/^{30}Si$, $^{235}U/^{30}Si$, and $^{235}U/^{238}U$ at the interface of Object E1 (left panes) and isotope ratio profiles (right panes) along a line normal to and across the interface (bottom left to top right). Of note at this interface, there is an abnormally wide profile of $^{235}U/^{30}Si$ enrichment that does not correspond to wider profiles of $^{54}Fe/^{30}Si$ or $^{44}Ca/^{30}Si$, although the regions of enrichment are generally co-located for all ratio profiles.

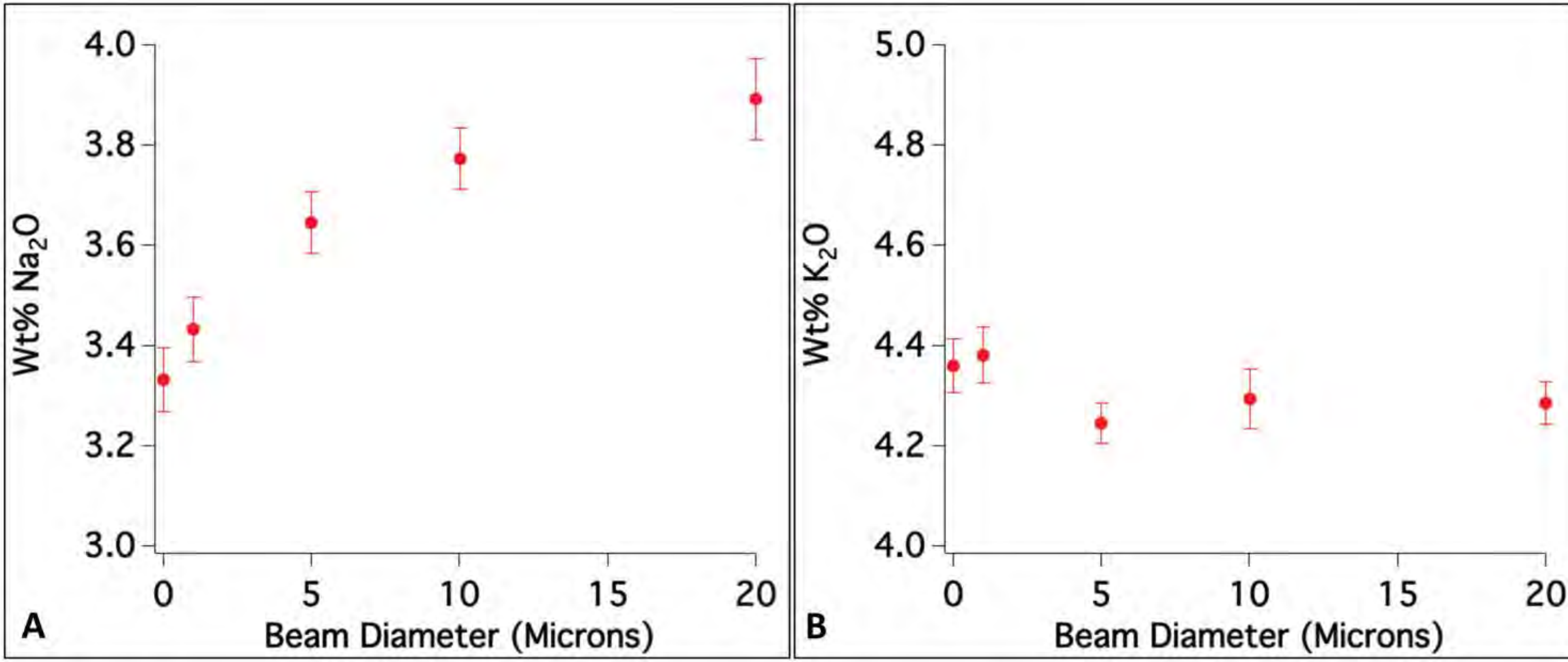


Figure EA23: (a) EPMA analyses for Na_2O on homogenized Lake County obsidian glass for spot sizes ranging from 20 microns down to the focused probe diameter (<<1 micron), showing a systematic decrease in concentration with increasing probe diameter. (b) EPMA analyses for K_2O using the same parameters, showing no discernible volatilization trend.

Table EA1.1:
Summary of analytical techniques applied to each of 11 fallout samples and soil samples collected proximate to ground zero.

Object ID	SEM	EDS	EPMA	NanoSIMS
A1	x	x		x
B1	x		x	x
B2	x		x	x
B3	x	x	x	x
C1	x	x	x	x
C2	x	x	x	x
C3	x	x	x	
D1	x	x		x
D2	x		x	x
E1	x	x	x	x
E2	x		x	
Soil	x		x	

Table EA1.2

Summary of U100 and U200 standards measurements as acquired by NanoSIMS

Sample ID	$^{235}U/^{238}U$	2-sigma	delta[c]	2-sigma	% deviation	2-sigma
U100	1.17×10^{-1}	0.02×10^{-1}	0.03×10^{-1}	0.02×10^{-1}	2.18	1.36
U100	1.15×10^{-1}	0.01×10^{-1}	0.01×10^{-1}	0.02×10^{-1}	0.53	1.31
U100	1.14×10^{-1}	0.04×10^{-1}	0.01×10^{-1}	0.04×10^{-1}	0.29	3.11
U100	1.15×10^{-1}	0.01×10^{-1}	0.01×10^{-1}	0.01×10^{-1}	0.99	0.20
U100	1.16×10^{-1}	0.01×10^{-1}	0.02×10^{-1}	0.01×10^{-1}	1.46	0.25
U200	2.43×10^{-1}	0.03×10^{-1}	0.08×10^{-1}	0.03×10^{-1}	3.37	1.23
U200	2.48×10^{-1}	0.03×10^{-1}	0.03×10^{-1}	0.03×10^{-1}	1.34	1.19
U200	2.46×10^{-1}	0.03×10^{-1}	0.05×10^{-1}	0.03×10^{-1}	1.93	1.28
[a]U100 reference value	**1.14×10^{-1}**	**0.03×10^{-1}**				
[b]U200 reference value	**0.251258616**	**0.01×10^{-1}**				

[a]The U100 standard used for this study was a glass matrix standard manufactured in-house and doped with ~10% ^{235}U isotopic composition. The reference value was determined in-house using a NuPlasma multi-collector inductively coupled plasma mass spectrometer.

[b]The CRM U200 standard was a U_3O_8 particle standard enriched to approximately 20% ^{235}U isotopic composition (Certificate of Analysis, 2008).

[c]Delta is the difference between the measured value and the reference value

Table EA2.1

Electron probe microanalysis spots across interfaces for 9 agglomerated aerodynamic fallout glass objects, presented as major element oxides*

Sample ID	Spot #	Al_2O_3	1σ**	MnO	1σ	Na_2O	1σ	K_2O	1σ	SiO_2	1σ	FeO	1σ	MgO	1σ	CaO	1σ	TiO_2	1σ	Total
B-1_	1	11.14	0.06	0.09	0.01	2.41	0.04	3.91	0.03	75.27	0.35	2.22	0.08	0.42	0.01	1.69	0.02	0.20	0.01	97.34
B-1_	2	11.42	0.06	0.10	0.01	1.59	0.03	4.01	0.03	74.94	0.34	2.29	0.08	0.46	0.01	1.80	0.02	0.21	0.01	96.82
B-1_	3	11.54	0.06	0.09	0.01	1.48	0.03	4.01	0.03	74.69	0.35	2.36	0.08	0.43	0.01	1.83	0.02	0.21	0.01	96.64
B-1_	4	12.17	0.07	0.09	0.01	1.59	0.03	4.10	0.03	74.05	0.35	2.47	0.09	0.47	0.01	1.89	0.02	0.23	0.01	97.05
B-1_	5	12.40	0.07	0.09	0.01	1.55	0.03	4.06	0.03	72.20	0.35	2.44	0.09	0.45	0.01	1.97	0.02	0.24	0.01	95.40
B-1_	6	12.79	0.07	0.07	0.01	1.68	0.03	4.03	0.03	72.52	0.34	2.20	0.08	0.49	0.01	2.06	0.02	0.24	0.01	96.08
B-1_	7	13.01	0.07	0.08	0.01	1.84	0.03	4.11	0.03	72.42	0.34	2.40	0.09	0.49	0.01	2.08	0.02	0.28	0.01	96.71
B-1_	8	13.15	0.07	0.08	0.01	1.68	0.03	4.02	0.03	71.91	0.35	2.49	0.09	0.49	0.01	2.12	0.02	0.25	0.01	96.20
B-1_	9	13.39	0.07	0.11	0.01	1.66	0.03	4.04	0.03	72.26	0.35	2.33	0.08	0.56	0.01	2.10	0.02	0.26	0.01	96.71
B-1_	10	13.29	0.07	0.11	0.01	1.57	0.03	4.10	0.03	72.33	0.35	2.44	0.09	0.54	0.01	2.10	0.02	0.24	0.01	96.72
B-1_	11	13.06	0.07	0.09	0.01	1.52	0.03	4.04	0.03	73.37	0.34	2.51	0.09	0.50	0.01	2.03	0.02	0.23	0.01	97.35
B-1_	12	12.44	0.07	0.10	0.01	1.53	0.03	4.02	0.03	73.51	0.35	2.42	0.09	0.51	0.01	1.88	0.02	0.23	0.01	96.63
B-1_	13	11.54	0.06	0.07	0.01	1.43	0.03	3.97	0.03	75.21	0.35	2.29	0.08	0.50	0.01	1.71	0.02	0.21	0.01	96.93
B-1_	14	8.94	0.06	0.06	0.00	1.03	0.02	3.51	0.03	79.54	0.36	2.16	0.08	0.36	0.01	1.11	0.02	0.15	0.00	96.86
B-1_	15	8.93	0.06	0.07	0.01	1.08	0.02	3.52	0.03	78.79	0.35	2.07	0.08	0.35	0.01	1.12	0.02	0.18	0.00	96.12
B-1_	16	10.02	0.06	0.07	0.01	1.24	0.03	3.70	0.03	78.24	0.35	2.32	0.08	0.34	0.01	1.22	0.02	0.19	0.00	97.35
B-1_	17	11.37	0.06	0.10	0.02	1.36	0.03	3.86	0.03	75.59	0.35	2.39	0.09	0.38	0.02	1.41	0.02	0.21	0.02	96.66
B-1_	18	12.72	0.07	0.10	0.01	1.21	0.02	4.01	0.03	74.06	0.35	2.52	0.09	0.36	0.01	1.56	0.02	0.23	0.01	96.77
B-1_	19	13.15	0.07	0.12	0.01	1.39	0.03	4.06	0.03	73.40	0.34	2.51	0.09	0.43	0.01	1.60	0.02	0.25	0.01	96.92
B-1_	20	13.37	0.07	0.11	0.01	1.38	0.03	4.01	0.03	73.21	0.34	2.67	0.09	0.44	0.01	1.62	0.02	0.24	0.01	97.05
B-1_	21	13.29	0.07	0.08	0.01	1.19	0.02	4.08	0.03	73.13	0.34	2.51	0.09	0.41	0.01	1.51	0.02	0.21	0.01	96.43
B-1_	22	12.81	0.07	0.09	0.01	1.30	0.03	3.98	0.03	74.40	0.35	2.40	0.09	0.37	0.01	1.44	0.02	0.24	0.01	97.03
B-1_	23	12.25	0.07	0.11	0.01	1.30	0.03	3.94	0.03	75.01	0.35	2.43	0.09	0.38	0.01	1.36	0.02	0.22	0.01	97.00
B-1_	24	11.92	0.06	0.10	0.01	1.38	0.03	3.89	0.03	75.14	0.35	2.33	0.08	0.43	0.01	1.29	0.02	0.24	0.01	96.71
B-1_	25	11.71	0.06	0.12	0.01	1.41	0.03	3.81	0.03	74.91	0.35	2.36	0.09	0.39	0.01	1.32	0.02	0.22	0.01	96.25
B-1_	26	11.96	0.06	0.07	0.01	1.27	0.03	3.81	0.03	75.40	0.35	2.51	0.09	0.46	0.01	1.38	0.02	0.23	0.01	97.09
B-1_	27	11.81	0.06	0.11	0.01	1.29	0.03	3.81	0.03	75.61	0.35	2.46	0.09	0.42	0.01	1.41	0.02	0.23	0.01	97.15
B-1_	28	12.11	0.07	0.11	0.01	1.17	0.02	3.90	0.03	74.97	0.35	2.47	0.09	0.45	0.01	1.44	0.02	0.24	0.01	96.85
B-1_	29	12.17	0.07	0.10	0.01	1.25	0.03	3.83	0.03	75.03	0.35	2.39	0.09	0.45	0.01	1.44	0.02	0.26	0.01	96.92
B-1_	30	11.94	0.06	0.10	0.01	1.35	0.03	3.86	0.03	75.15	0.35	2.43	0.09	0.45	0.01	1.36	0.02	0.25	0.01	96.89
B-1_	31	11.90	0.06	0.10	0.01	1.23	0.03	3.81	0.03	75.53	0.35	2.48	0.09	0.47	0.01	1.32	0.02	0.25	0.01	97.09
B-1_	32	12.18	0.07	0.06	0.00	1.18	0.02	3.83	0.03	74.82	0.35	2.31	0.08	0.47	0.01	1.33	0.02	0.25	0.01	96.43
B-1_	33	12.30	0.07	0.08	0.01	1.13	0.02	3.84	0.03	74.90	0.35	2.42	0.09	0.46	0.01	1.35	0.02	0.26	0.01	96.72
B-1_	34	12.57	0.07	0.09	0.01	1.24	0.03	3.83	0.03	74.51	0.35	2.41	0.09	0.49	0.01	1.41	0.02	0.25	0.01	96.80
B-1_	35	13.04	0.07	0.08	0.01	1.48	0.03	3.82	0.03	73.51	0.35	2.36	0.09	0.48	0.01	1.41	0.02	0.25	0.01	96.43
B-1_	36	13.63	0.07	0.09	0.01	1.46	0.03	3.92	0.03	73.12	0.34	2.49	0.09	0.51	0.01	1.46	0.02	0.26	0.01	96.95
B-1_	37	13.86	0.07	0.08	0.01	1.48	0.03	3.91	0.03	72.49	0.35	2.40	0.09	0.54	0.01	1.52	0.02	0.26	0.01	96.55
B-1_	38	14.30	0.07	0.10	0.01	1.33	0.03	3.89	0.03	72.47	0.35	2.82	0.09	0.50	0.01	1.53	0.02	0.23	0.01	97.17
B-1_	39	14.52	0.07	0.11	0.01	1.33	0.03	3.94	0.03	72.22	0.35	2.72	0.09	0.53	0.01	1.58	0.02	0.25	0.01	97.21
B-1_	40	14.50	0.07	0.07	0.01	1.37	0.03	3.88	0.03	72.75	0.35	2.47	0.09	0.57	0.01	1.55	0.02	0.29	0.01	97.45
B-1_	41	14.36	0.07	0.09	0.01	1.56	0.03	3.94	0.03	72.17	0.35	2.47	0.09	0.53	0.01	1.51	0.02	0.27	0.01	96.89
B-1_	42	14.35	0.07	0.11	0.01	1.39	0.03	3.93	0.03	72.18	0.35	2.23	0.08	0.55	0.01	1.48	0.02	0.25	0.01	96.47
B-1_	43	14.22	0.07	0.08	0.01	1.45	0.03	3.92	0.03	73.07	0.34	2.54	0.09	0.54	0.01	1.40	0.02	0.26	0.01	97.48
B-1_	44	13.95	0.07	0.06	0.00	1.35	0.03	3.88	0.03	73.49	0.35	2.39	0.09	0.52	0.01	1.30	0.02	0.23	0.01	97.17
B-1_	45	13.73	0.07	0.10	0.01	1.20	0.02	3.91	0.03	73.84	0.35	2.39	0.09	0.55	0.01	1.31	0.02	0.26	0.01	97.29
B-1_	46	13.58	0.07	0.11	0.01	1.19	0.02	3.95	0.03	73.41	0.35	2.22	0.08	0.53	0.01	1.29	0.02	0.25	0.01	96.53
B-1_	47	13.10	0.07	0.08	0.01	1.30	0.03	3.91	0.03	73.66	0.35	2.45	0.09	0.49	0.01	1.23	0.02	0.25	0.01	96.47
B-1_	48	13.39	0.07	0.12	0.01	1.30	0.03	3.92	0.03	74.43	0.35	2.27	0.08	0.54	0.01	1.20	0.02	0.26	0.01	97.44
B-1_	49	13.43	0.07	0.07	0.01	1.41	0.03	3.98	0.03	74.21	0.35	2.33	0.08	0.53	0.01	1.22	0.02	0.25	0.01	97.44
B-1_	50	13.45	0.07	0.09	0.01	1.40	0.03	3.95	0.03	73.28	0.34	2.35	0.09	0.55	0.01	1.23	0.02	0.29	0.01	96.58
B-1_	51	13.75	0.07	0.06	0.00	1.34	0.03	3.97	0.03	73.74	0.35	2.33	0.08	0.51	0.01	1.21	0.02	0.29	0.01	97.19
B-1_	52	13.77	0.07	0.07	0.01	1.27	0.03	3.90	0.03	73.49	0.35	2.40	0.09	0.52	0.01	1.28	0.02	0.29	0.01	96.99
B-1_	53	14.12	0.07	0.08	0.01	1.35	0.03	4.01	0.03	72.21	0.35	2.24	0.08	0.53	0.01	1.32	0.02	0.30	0.01	96.15
B-1_	54	14.26	0.07	0.11	0.01	1.41	0.03	4.00	0.03	73.21	0.34	2.43	0.09	0.56	0.01	1.37	0.02	0.30	0.01	97.65
B-1_	55	14.10	0.07	0.06	0.00	1.54	0.03	4.04	0.03	72.17	0.35	2.25	0.08	0.54	0.01	1.34	0.02	0.29	0.01	96.33
B-1_	56	14.44	0.07	0.07	0.01	1.52	0.03	4.04	0.03	71.72	0.34	2.43	0.09	0.55	0.01	1.36	0.02	0.32	0.01	96.45
B-1_	57	14.50	0.07	0.10	0.01	1.46	0.03	4.07	0.03	72.28	0.35	2.17	0.08	0.58	0.01	1.38	0.02	0.29	0.01	96.84
B-1_	58	14.49	0.07	0.08	0.01	1.39	0.03	4.13	0.03	72.41	0.35	2.39	0.09	0.56	0.01	1.40	0.02	0.32	0.01	97.16
B-1_	59	14.60	0.07	0.11	0.01	1.32	0.03	4.12	0.03	72.38	0.35	2.48	0.09	0.55	0.01	1.37	0.02	0.28	0.01	97.20
B-1_	60	14.36	0.07	0.10	0.01	1.40	0.03	4.10	0.03	72.21	0.35	2.37	0.09	0.61	0.01	1.40	0.02	0.32	0.01	96.87
B-1_	61	14.05	0.07	0.07	0.00	1.56	0.03	4.12	0.03	71.62	0.34	2.41	0.09	0.51	0.01	1.44	0.02	0.34	0.01	96.12
B-1_	62	14.45	0.07	0.11	0.01	1.55	0.03	4.15	0.03	71.63	0.34	2.46	0.09	0.56	0.01	1.48	0.02	0.33	0.01	96.71
B-1_	63	14.25	0.07	0.07	0.01	1.54	0.03	4.20	0.03	71.82	0.34	2.56	0.09	0.56	0.01	1.46	0.02	0.35	0.01	96.81
B-1_	64	13.71	0.07	0.08	0.01	1.56	0.03	4.18	0.03	72.44	0.35	2.31	0.08	0.59	0.01	1.47	0.02	0.31	0.01	96.65
B-1_	65	13.61	0.07	0.08	0.02	1.39	0.03	4.22	0.03	72.51	0.35	2.39	0.09	0.56	0.02	1.48	0.02	0.32	0.02	96.56
B-1_	66	13.33	0.07	0.09	0.01	1.14	0.02	4.15	0.03	72.97	0.34	2.36	0.08	0.51	0.01	1.50	0.02	0.34	0.01	96.39
B-1_	67	12.87	0.07	0.08	0.01	1.47	0.03	4.15	0.03	74.12	0.35	2.22	0.08	0.53	0.01	1.50	0.02	0.31	0.01	97.24
B-1_	68	12.24	0.07	0.05	0.00	1.45	0.03	4.05	0.03	74.41	0.35	2.28	0.08	0.52	0.01	1.54	0.02	0.31	0.01	96.85
B-1_	69	11.53	0.06	0.08	0.01	1.56	0.03	4.01	0.03	75.10	0.35	2.39	0.09	0.52	0.01	1.58	0.02	0.30	0.01	97.06
B-1_	70	11.60	0.06	0.09	0.01	1.54	0.03	3.98	0.03	75.29	0.35	2.53	0.09	0.53	0.01	1.80	0.02	0.27	0.01	97.63
B-1_	71	12.34	0.07	0.11	0.01	1.46	0.03	4.04	0.03	72.99	0.34	2.72	0.09	0.57	0.01	2.03	0.02	0.25	0.01	96.51
B-1_	72	12.92	0.07	0.11	0.01	1.35	0.03	4.14	0.03	73.52	0.35	2.51	0.09	0.51	0.01	1.95	0.02	0.28	0.01	97.30
B-1_	73	13.15	0.07	0.08	0.01	1.37	0.03	4.16	0.03	73.43	0.35	2.31	0.08	0.49	0.01	1.85	0.02	0.27	0.01	97.10
B-1_	74	13.10	0.07	0.09	0.01	1.47	0.03	4.13	0.03	73.63	0.35	2.31	0.08	0.52	0.01	1.75	0.02	0.29	0.01	97.29
B-1_	75	13.15	0.07	0.10	0.01	1.63	0.03	4.09	0.03	72.82	0.34	2.31	0.08	0.51	0.01	1.83	0.02	0.27	0.01	96.71
B-1_	76	13.21	0.07	0.09	0.01	1.72	0.03	4.09	0.03	73.13	0.34	2.64	0.09	0.56	0.01	1.88	0.02	0.28	0.01	97.59
B-1_	77	13.62	0.07	0.09	0.01	1.65	0.03	4.04	0.03	72.53	0.35	2.40	0.09	0.58	0.01	1.92	0.02	0.29	0.01	97.12
B-1_	78	13.45	0.07	0.11	0.01	1.51	0.03	4.06	0.03	72.45	0.35	2.49	0.09	0.49	0.01	1.87	0.02	0.31	0.01	96.74
B-1_	79	13.33	0.07	0.10	0.01	1.43	0.03	4.10	0.03	72.58	0.34	2.35	0.08	0.53	0.01	1.82	0.02	0.30	0.01	96.54
B-1_	80	13.02	0.07	0.08	0.01	1.43	0.03	4.08	0.03	73.84	0.35	2.45	0.09	0.48	0.01	1.69	0.02	0.26	0.01	97.32
B-1_	81	12.88	0.07	0.07	0.01	1.55	0.03	4.08	0.03	74.17	0.35	2.37	0.09	0.48	0.01	1.70	0.02	0.27	0.01	97.57
B-1_	82	13.27	0.07	0.09	0.01	1.64	0.03	4.12	0.03	72.75	0.34	2.19	0.08	0.47	0.01	1.71	0.02	0.28	0.01	96.53
B-1_	83	13.02	0.07	0.08	0.01	1.49	0.03	4.11	0.03	73.14	0.34	2.33	0.08	0.48	0.01	1.78	0.02	0.26	0.01	96.69
B-1_	84	12.91	0.07	0.07	0.01	1.48	0.03	4.08	0.03	73.53	0.35	2.36	0.09	0.48	0.01	1.79	0.02	0.25	0.01	96.95
B-1_	85	12.48	0.07	0.07	0.01	1.38	0.03	4.08	0.03	73.72	0.35	2.39	0.09	0.47	0.01	1.83	0.02	0.27	0.01	96.69
B-1_	86	12.66	0.07	0.09	0.01	1.29	0.03	4.11	0.03	73.58	0.35	2.25	0.08	0.48	0.01	1.85	0.02	0.27	0.01	96.57
B-1_	87	12.78	0.07	0.09	0.01	1.39	0.03	4.00	0.03	74.20	0.35	2.40	0.09	0.49	0.01	1.86	0.02	0.26	0.01	97.47
B-1_	88	12.82	0.07	0.10	0.01	1.54	0.03	4.06	0.03	73.45	0.35	2.38	0.09	0.48	0.01	1.91	0.02	0.24	0.01	96.97
B-1_	89	12.86	0.07	0.08	0.01	1.57	0.03	4.00	0.03	73.71	0.35	2.45	0.09	0.44	0.01	1.95	0.02	0.25	0.01	97.32
B-1_	90	14.30	0.07	0.06	0.00	2.53	0.04	3.91	0.03	71.76	0.34	2.49	0.09	0.49	0.01	2.40	0.02	0.29	0.01	98.24
B-1_	91	13.84	0.07	0.09	0.01	1.55	0.03	3.91	0.03	72.15	0.35	2.52	0.09	0.52	0.01	2.37	0.02	0.32	0.01	97.27
B-1_	92	13.55	0.07	0.08	0.01	1.53	0.03	3.82	0.03	72.83	0.34	2.34	0.08	0.55	0.01	2.39	0.02	0.30	0.01	97.38
B-1_	93	13.53	0.07	0.08	0.01	1.38	0.03	3.88	0.03	73.13	0.34	2.40	0.09	0.51	0.01	2.35	0.02	0.32	0.01	97.58
B-1_	94	13.49	0.07	0.10	0.01	1.54	0.03	3.90	0.03	73.02	0.34	2.57	0.09	0.53	0.01	2.32	0.02	0.30	0.01	97.76
B-1_	95	13.49	0.07	0.10	0.01	1.35	0.03	3.89	0.03	72.55	0.34	2.29	0.08	0.52	0.01	2.32	0.02	0.30	0.01	96.80
B-1_	96	13.20	0.07	0.08	0.01	1.28	0.03	3.86	0.03	73.13	0.34	2.25	0.08	0.52	0.01	2.25	0.02	0.30	0.01	96.87
B-1_	97	13.08	0.07	0.08	0.01	1.41	0.03	3.88	0.03	73.89	0.35	2.26	0.08	0.50	0.01	2.26	0.02	0.28	0.01	97.63
B-1_	98	13.52	0.07	0.08	0.01	1.22	0.03	3.88	0.03	73.09	0.34	2.37	0.09	0.50	0.01	2.24	0.02	0.30	0.01	97.21
B-1_	99	13.47	0.07	0.10	0.01	1.45	0.03	3.94	0.03	72.63	0.34	2.23	0.08	0.48	0.01	2.23	0.02	0.29	0.01	96.82
B-1_	100	13.55	0.07	0.08	0.01	1.37	0.03	3.96	0.03	73.66	0.35	2.40	0.09	0.48	0.01	2.25	0.02	0.29	0.01	98.03
B-1_	101	13.55	0.07	0.11	0.01	1.34	0.03	3.99	0.03	73.29	0.34	2.27	0.08	0.50	0.01	2.29	0.02	0.26	0.01	97.60
B-1_	102	13.35	0.07	0.08	0.01	1.68	0.03	3.99	0.03	71.23	0.34	2.23	0.08	0.49	0.01	2.33	0.02	0.28	0.01	95.66
B-1_	103	13.87	0.07	0.09	0.01	1.41	0.03	3.95	0.03	73.00	0.34	2.27	0.08	0.51	0.01	2.34	0.02	0.27	0.01	97.71
B-1_	104	14.04	0.07	0.08	0.01	1.70	0.03	4.03	0.03	71.94	0.35	2.38	0.09	0.52	0.01	2.38	0.02	0.29	0.01	97.36
B-1_	105	14.10	0.07	0.07	0.00	1.48	0.03	3.99	0.03	72.52	0.35	2.33	0.08	0.47	0.01	2.36	0.02	0.26	0.01	97.57
B-1_	106	13.87	0.07	0.07	0.01	1.70	0.03	4.04	0.03	72.14	0.35	2.31	0.08	0.48	0.01	2.31	0.02	0.28	0.01	97.20
B-1_	107	13.87	0.07	0.06	0.00	1.42	0.03	4.06	0.03	72.36	0.35	2.35	0.08	0.51	0.01	2.28	0.02	0.27	0.01	97.18
B-1_	108	13.60	0.07	0.08	0.01	1.30	0.03	4.07	0.03	72.58	0.34	2.39	0.09	0.50	0.01	2.17	0.02	0.27	0.01	96.95
B-1_	109	13.63	0.07	0.08	0.01	1.63	0.03	4.15	0.03	72.75	0.34	2.50	0.09	0.45	0.01	2.28	0.02	0.27	0.01	97.74
B-1_	110	13.69	0.07	0.07	0.01	1.42	0.03	4.03	0.03	71.72	0.34	2.39	0.09	0.50	0.01	2.33	0.02	0.27	0.01	96.43
B-1_	111	13.97	0.07	0.07	0.01	1.55	0.03	4.10	0.03	71.59	0.34	2.36	0.08	0.53	0.01	2.41	0.02	0.30	0.01	96.89
B-1_	112	13.96	0.07	0.10	0.01	1.50	0.03	4.14	0.03	70.29	0.34	2.27	0.08	0.49	0.01	2.44	0.02	0.30	0.01	95.48
B-1_	113	14.03	0.07	0.09	0.01	1.75	0.03	4.14	0.03	71.07	0.34	2.36	0.08	0.49	0.01	2.42	0.02	0.30	0.01	96.64
B-1_	114	14.13	0.07	0.10	0.01	1.41	0.03	4.08	0.03	72.40	0.35	2.44	0.09	0.49	0.01	2.42	0.02	0.31	0.01	97.77
B-1_	115	13.95	0.07	0.09	0.02	1.51	0.03	4.11	0.03	72.14	0.35	2.34	0.10	0.43	0.02	2.39	0.03	0.28	0.02	97.24
B-1_	116	13.76	0.07	0.05	0.00	1.32	0.03	4.13	0.03	72.26	0.35	2.26	0.08	0.46	0.01	2.36	0.02	0.30	0.01	96.91
B-1_	117	12.85	0.07	0.09	0.01	1.49	0.03	4.12	0.03	71.87	0.34	2.39	0.08	0.44	0.01	2.26	0.02	0.30	0.01	95.80
B-1_	118	12.93	0.07	0.08	0.01	1.62	0.03	4.13	0.03	73.36	0.34	2.11	0.08	0.40	0.01	2.08	0.02	0.27	0.01	96.98

EA2_2

B-1_	119	12.53	0.07	0.07	0.01	1.28	0.03	4.11	0.03	74.42	0.35	2.27	0.08	0.46	0.01	2.00	0.02	0.28	0.01	97.43
B-1_	120	11.82	0.07	0.08	0.01	1.53	0.03	4.12	0.03	75.34	0.35	2.30	0.08	0.41	0.01	1.83	0.02	0.24	0.01	97.67
B-1_	121	11.87	0.06	0.07	0.00	1.35	0.03	4.14	0.03	74.49	0.35	2.13	0.08	0.41	0.01	1.77	0.02	0.24	0.01	96.47
B-1_	122	11.81	0.06	0.06	0.00	1.32	0.03	4.07	0.03	75.28	0.35	2.01	0.08	0.40	0.01	1.74	0.02	0.25	0.01	96.95
B-1_	123	11.83	0.07	0.05	0.00	1.47	0.03	4.16	0.03	74.87	0.35	2.25	0.08	0.43	0.01	1.75	0.02	0.23	0.01	97.05
B-1_	124	11.83	0.07	0.05	0.00	1.49	0.03	4.23	0.03	74.76	0.35	2.13	0.08	0.43	0.01	1.74	0.02	0.25	0.01	96.91
B-1_	125	11.75	0.06	0.03	0.00	1.44	0.03	4.19	0.03	75.03	0.35	2.00	0.08	0.46	0.01	1.72	0.02	0.26	0.01	96.88
B-1_	126	11.85	0.07	0.04	0.00	1.36	0.03	4.16	0.03	75.07	0.35	2.19	0.08	0.45	0.01	1.72	0.02	0.28	0.01	97.12
B-1_	127	11.61	0.06	0.10	0.01	1.38	0.03	4.28	0.03	75.09	0.35	2.18	0.08	0.47	0.01	1.73	0.02	0.26	0.01	97.10
B-1_	128	12.22	0.07	0.06	0.00	1.55	0.03	4.36	0.03	74.16	0.35	2.28	0.08	0.52	0.01	1.72	0.02	0.29	0.01	97.16
B-1_	129	11.99	0.06	0.06	0.00	1.38	0.03	4.36	0.03	73.81	0.35	2.18	0.08	0.53	0.01	1.73	0.02	0.30	0.01	96.34
B-1_	130	11.85	0.07	0.07	0.00	1.48	0.03	4.41	0.03	74.44	0.35	2.21	0.08	0.57	0.01	1.78	0.02	0.29	0.01	97.10
B-1_	131	11.62	0.06	0.06	0.00	1.35	0.03	4.38	0.03	74.06	0.35	2.54	0.09	0.60	0.01	2.11	0.02	0.27	0.01	96.99
B-1_	132	11.75	0.06	0.10	0.01	1.93	0.03	4.40	0.03	71.99	0.35	3.13	0.10	0.71	0.01	3.07	0.03	0.26	0.01	97.34
B-1_	133	12.86	0.07	0.06	0.00	2.09	0.03	4.50	0.03	71.42	0.34	1.99	0.08	0.48	0.01	3.04	0.03	0.24	0.01	96.68
B-2_	1	13.05	0.07	0.06	0.00	2.30	0.04	4.55	0.03	72.49	0.34	1.80	0.07	0.40	0.01	2.72	0.03	0.25	0.01	97.61
B-2_	2	13.06	0.07	0.08	0.01	2.09	0.03	4.59	0.03	72.44	0.34	1.98	0.08	0.39	0.01	2.51	0.02	0.26	0.01	97.40
B-2_	3	13.21	0.07	0.05	0.00	2.30	0.04	4.67	0.03	71.55	0.34	1.87	0.07	0.42	0.01	2.30	0.02	0.27	0.01	96.64
B-2_	4	13.40	0.07	0.06	0.00	1.99	0.03	4.65	0.03	72.55	0.34	1.98	0.08	0.45	0.01	2.27	0.02	0.25	0.01	97.61
B-2_	5	13.63	0.07	0.07	0.01	2.21	0.03	4.69	0.03	71.18	0.34	1.99	0.08	0.45	0.01	2.19	0.02	0.27	0.01	96.68
B-2_	6	13.75	0.07	0.04	0.00	1.96	0.03	4.60	0.03	71.62	0.34	2.03	0.08	0.44	0.01	2.21	0.02	0.25	0.01	96.90
B-2_	7	13.97	0.07	0.09	0.01	1.57	0.03	4.52	0.03	72.25	0.35	2.24	0.08	0.44	0.01	2.22	0.02	0.28	0.01	97.58
B-2_	8	14.05	0.07	0.06	0.00	1.99	0.03	4.56	0.03	71.02	0.34	2.14	0.08	0.45	0.01	2.17	0.02	0.27	0.01	96.71
B-2_	9	13.96	0.07	0.08	0.01	1.77	0.03	4.46	0.03	71.59	0.34	2.06	0.08	0.47	0.01	2.22	0.02	0.26	0.01	96.87
B-2_	10	14.18	0.07	0.09	0.01	1.98	0.03	4.51	0.03	71.34	0.34	2.13	0.08	0.49	0.01	2.26	0.02	0.28	0.01	97.26
B-2_	11	14.16	0.07	0.09	0.01	1.83	0.03	4.37	0.03	71.29	0.34	1.99	0.08	0.44	0.01	2.25	0.02	0.27	0.01	96.68
B-2_	12	14.30	0.07	0.07	0.00	1.68	0.03	4.37	0.03	71.63	0.34	2.07	0.08	0.47	0.01	2.29	0.02	0.29	0.01	97.17
B-2_	13	14.31	0.07	0.07	0.01	1.65	0.03	4.32	0.03	71.61	0.34	2.34	0.08	0.48	0.01	2.31	0.02	0.28	0.01	97.37
B-2_	14	14.36	0.07	0.09	0.01	1.68	0.03	4.35	0.03	72.12	0.35	2.21	0.08	0.46	0.01	2.33	0.02	0.27	0.01	97.87
B-2_	15	14.43	0.07	0.06	0.00	1.79	0.03	4.29	0.03	72.15	0.35	2.10	0.08	0.47	0.01	2.32	0.02	0.27	0.01	97.88
B-2_	16	14.13	0.07	0.06	0.00	1.70	0.03	4.23	0.03	72.08	0.35	2.21	0.08	0.47	0.01	2.33	0.02	0.25	0.01	97.46
B-2_	17	14.51	0.07	0.07	0.00	1.76	0.03	4.28	0.03	71.73	0.34	2.19	0.08	0.50	0.01	2.34	0.02	0.27	0.01	97.65
B-2_	18	14.24	0.07	0.05	0.00	1.57	0.03	4.25	0.03	71.46	0.34	2.13	0.08	0.48	0.01	2.31	0.02	0.26	0.01	96.76
B-2_	19	14.54	0.07	0.07	0.01	1.48	0.03	4.24	0.03	71.67	0.34	2.14	0.08	0.46	0.01	2.32	0.02	0.27	0.01	97.20
B-2_	20	14.51	0.07	0.05	0.00	1.88	0.03	4.25	0.03	70.08	0.34	2.17	0.08	0.46	0.01	2.35	0.02	0.27	0.01	96.01
B-2_	21	14.35	0.07	0.06	0.00	1.73	0.03	4.28	0.03	71.61	0.34	2.11	0.08	0.50	0.01	2.32	0.02	0.26	0.01	97.22
B-2_	22	14.34	0.07	0.08	0.01	1.86	0.03	4.30	0.03	71.87	0.34	1.97	0.08	0.47	0.01	2.29	0.02	0.27	0.01	97.45
B-2_	23	14.37	0.07	0.07	0.01	1.56	0.03	4.32	0.03	71.59	0.34	1.94	0.08	0.45	0.01	2.27	0.02	0.26	0.01	96.83
B-2_	24	14.34	0.07	0.06	0.00	1.94	0.03	4.35	0.03	71.07	0.34	2.25	0.08	0.49	0.01	2.29	0.02	0.28	0.01	97.06
B-2_	25	14.04	0.07	0.06	0.00	1.80	0.03	4.33	0.03	71.63	0.34	1.96	0.08	0.44	0.01	2.35	0.02	0.24	0.01	96.85
B-2_	26	14.09	0.07	0.07	0.00	1.71	0.03	4.41	0.03	71.78	0.34	2.01	0.08	0.42	0.01	2.40	0.02	0.28	0.01	97.17
B-2_	27	13.95	0.07	0.06	0.00	1.94	0.03	4.36	0.03	71.83	0.34	2.07	0.08	0.43	0.01	2.49	0.02	0.26	0.01	97.38
B-2_	28	13.65	0.07	0.06	0.00	1.52	0.03	4.32	0.03	72.57	0.34	1.95	0.08	0.40	0.01	2.54	0.02	0.26	0.01	97.28
B-2_	29	13.17	0.07	0.06	0.00	1.80	0.03	4.28	0.03	72.48	0.34	1.99	0.08	0.47	0.01	2.67	0.03	0.24	0.01	97.15
B-2_	30	11.79	0.07	0.10	0.01	1.65	0.03	4.11	0.03	73.45	0.34	2.55	0.08	0.55	0.01	2.90	0.03	0.22	0.01	97.32
B-2_	31	11.27	0.07	0.10	0.02	1.28	0.04	4.00	0.03	74.44	0.35	2.14	0.10	0.52	0.02	2.66	0.03	0.19	0.02	96.60
B-2_	32	12.69	0.06	0.11	0.01	1.65	0.03	4.18	0.03	72.52	0.35	2.24	0.08	0.46	0.01	2.84	0.03	0.23	0.00	96.92
B-2_	33	11.32	0.06	0.08	0.01	1.41	0.03	4.06	0.03	73.97	0.35	2.18	0.08	0.48	0.01	2.39	0.02	0.22	0.01	96.11
B-2_	34	11.94	0.06	0.05	0.00	1.69	0.03	4.24	0.03	74.50	0.35	2.10	0.08	0.41	0.01	2.23	0.02	0.21	0.01	97.37
B-2_	35	11.94	0.06	0.10	0.01	1.54	0.03	4.20	0.03	73.35	0.34	2.03	0.08	0.46	0.01	2.31	0.02	0.21	0.01	96.14
B-2_	36	12.66	0.07	0.07	0.00	1.83	0.03	4.25	0.03	73.14	0.34	2.08	0.08	0.46	0.01	2.28	0.02	0.25	0.01	97.01
B-2_	37	12.76	0.07	0.08	0.01	1.58	0.03	4.34	0.03	72.86	0.34	2.30	0.08	0.46	0.01	2.30	0.02	0.22	0.01	96.91
B-2_	38	12.96	0.07	0.05	0.00	1.73	0.03	4.24	0.03	72.78	0.34	2.05	0.08	0.49	0.01	2.35	0.02	0.24	0.01	96.89
B-2_	39	12.91	0.07	0.08	0.01	1.43	0.03	4.20	0.03	72.52	0.34	2.07	0.08	0.45	0.01	2.37	0.02	0.24	0.01	96.27
B-2_	40	13.01	0.07	0.08	0.01	1.50	0.03	4.23	0.03	72.43	0.34	2.10	0.08	0.47	0.01	2.33	0.02	0.25	0.01	96.40
B-2_	41	13.10	0.07	0.06	0.00	1.63	0.03	4.26	0.03	72.97	0.34	2.12	0.08	0.53	0.01	2.36	0.02	0.25	0.01	97.27
B-2_	42	13.06	0.07	0.08	0.01	1.55	0.03	4.22	0.03	71.46	0.34	2.13	0.08	0.45	0.01	2.37	0.02	0.23	0.01	95.54
B-2_	43	13.08	0.07	0.05	0.00	1.68	0.03	4.24	0.03	72.85	0.34	2.11	0.08	0.47	0.01	2.34	0.02	0.21	0.01	97.03
B-2_	44	12.87	0.07	0.07	0.01	1.56	0.03	4.18	0.03	72.45	0.34	2.20	0.08	0.48	0.01	2.37	0.02	0.25	0.01	96.44
B-2_	45	13.10	0.07	0.08	0.01	1.57	0.03	4.18	0.03	72.52	0.34	2.15	0.08	0.49	0.01	2.34	0.02	0.24	0.01	96.67
B-2_	46	13.09	0.07	0.10	0.01	1.45	0.03	4.24	0.03	72.79	0.34	2.17	0.08	0.50	0.01	2.36	0.02	0.23	0.01	96.93
B-2_	47	13.18	0.07	0.08	0.01	1.43	0.03	4.21	0.03	72.38	0.34	2.03	0.08	0.50	0.01	2.35	0.02	0.24	0.01	96.40
B-2_	48	13.16	0.07	0.10	0.01	1.77	0.03	4.21	0.03	71.50	0.34	2.30	0.08	0.48	0.01	2.35	0.02	0.23	0.01	96.10
B-2_	49	13.18	0.07	0.09	0.01	1.52	0.03	4.20	0.03	72.27	0.35	2.24	0.08	0.52	0.01	2.37	0.02	0.26	0.01	96.65
B-3_	1	14.44	0.07	0.06	0.00	2.39	0.04	3.52	0.03	71.30	0.34	2.61	0.09	0.53	0.01	2.59	0.03	0.26	0.01	97.70
B-3_	2	14.46	0.07	0.06	0.00	1.74	0.03	3.58	0.03	71.99	0.35	2.37	0.08	0.51	0.01	2.71	0.03	0.28	0.01	97.70
B-3_	3	14.42	0.07	0.08	0.01	1.56	0.03	3.61	0.03	71.68	0.34	2.48	0.09	0.52	0.01	2.68	0.03	0.26	0.01	97.28
B-3_	4	14.49	0.07	0.09	0.01	1.59	0.03	3.58	0.03	71.94	0.35	2.15	0.08	0.50	0.01	2.71	0.03	0.27	0.01	97.32
B-3_	5	14.51	0.07	0.10	0.01	1.65	0.03	3.58	0.03	71.73	0.34	2.50	0.09	0.51	0.01	2.71	0.03	0.26	0.01	97.55
B-3_	6	14.70	0.07	0.09	0.01	1.71	0.03	3.57	0.03	71.39	0.34	2.62	0.09	0.51	0.01	2.81	0.03	0.31	0.01	97.70
B-3_	7	14.77	0.07	0.09	0.01	1.46	0.03	3.57	0.03	71.25	0.34	2.55	0.09	0.49	0.01	2.74	0.03	0.30	0.01	97.22
B-3_	8	14.49	0.07	0.10	0.01	1.79	0.03	3.57	0.03	72.34	0.35	2.30	0.08	0.48	0.01	2.67	0.03	0.27	0.01	98.01
B-3_	9	14.35	0.07	0.09	0.01	1.68	0.03	3.61	0.03	71.94	0.35	2.44	0.09	0.47	0.01	2.64	0.03	0.28	0.01	97.50
B-3_	10	14.34	0.07	0.08	0.01	1.62	0.03	3.56	0.03	72.50	0.35	2.71	0.09	0.54	0.01	2.64	0.03	0.26	0.01	98.25
B-3_	11	13.34	0.07	0.10	0.01	1.50	0.03	3.62	0.03	72.72	0.34	2.53	0.09	0.47	0.01	2.56	0.02	0.27	0.01	97.11
B-3_	12	13.56	0.07	0.09	0.01	1.58	0.03	3.62	0.03	73.83	0.35	2.45	0.09	0.49	0.01	2.42	0.02	0.25	0.01	98.29
B-3_	13	13.07	0.07	0.05	0.00	1.54	0.03	3.60	0.03	73.93	0.35	2.36	0.08	0.49	0.01	2.23	0.02	0.24	0.01	97.51
B-3_	14	12.73	0.07	0.07	0.01	1.34	0.03	3.60	0.03	74.56	0.35	2.37	0.08	0.47	0.01	2.17	0.02	0.25	0.01	97.56
B-3_	15	12.52	0.07	0.08	0.01	1.60	0.03	3.68	0.03	73.32	0.34	2.34	0.08	0.41	0.01	2.12	0.02	0.27	0.01	96.33
B-3_	16	12.82	0.07	0.05	0.00	1.60	0.03	3.70	0.03	73.74	0.35	2.48	0.09	0.48	0.01	2.17	0.02	0.28	0.01	97.31
B-3_	17	13.21	0.07	0.07	0.00	1.54	0.03	3.74	0.03	74.12	0.35	2.44	0.09	0.49	0.01	2.26	0.02	0.30	0.01	98.16
B-3_	18	13.54	0.07	0.08	0.01	1.44	0.03	3.75	0.03	73.27	0.34	2.57	0.09	0.48	0.01	2.30	0.02	0.30	0.01	97.72
B-3_	19	13.53	0.07	0.09	0.01	1.59	0.03	3.77	0.03	72.97	0.34	2.42	0.08	0.52	0.01	2.35	0.02	0.33	0.01	97.57
B-3_	20	13.76	0.07	0.09	0.01	1.64	0.03	3.78	0.03	71.24	0.34	2.56	0.09	0.52	0.01	2.47	0.02	0.34	0.01	96.40
B-3_	21	13.82	0.07	0.08	0.01	1.48	0.03	3.87	0.03	72.30	0.35	2.49	0.09	0.52	0.01	2.43	0.02	0.35	0.01	97.34
B-3_	22	13.43	0.07	0.07	0.00	1.75	0.03	3.83	0.03	73.02	0.34	2.57	0.09	0.54	0.01	2.40	0.02	0.35	0.01	97.95
B-3_	23	13.04	0.07	0.09	0.01	1.69	0.03	3.87	0.03	73.31	0.34	2.39	0.08	0.50	0.01	2.40	0.02	0.31	0.01	97.60
B-3_	24	12.79	0.07	0.11	0.01	1.59	0.03	3.79	0.03	72.87	0.34	2.80	0.09	0.54	0.01	2.51	0.02	0.32	0.01	97.31
B-3_	25	12.67	0.07	0.09	0.01	1.58	0.03	3.75	0.03	72.73	0.34	3.17	0.10	0.65	0.01	2.67	0.03	0.29	0.01	97.60
B-3_	26	12.84	0.07	0.11	0.01	1.38	0.03	3.79	0.03	73.22	0.34	2.84	0.09	0.54	0.01	2.47	0.02	0.25	0.01	97.45
B-3_	27	13.00	0.07	0.09	0.01	1.65	0.03	3.95	0.03	73.94	0.35	2.37	0.08	0.50	0.01	2.14	0.02	0.30	0.01	97.95
B-3_	28	13.18	0.07	0.08	0.01	1.74	0.03	3.95	0.03	73.56	0.35	2.47	0.09	0.52	0.01	2.05	0.02	0.28	0.01	97.83
B-3_	29	12.98	0.07	0.04	0.00	1.68	0.03	3.96	0.03	74.81	0.35	2.17	0.08	0.49	0.01	1.97	0.02	0.28	0.01	98.38
B-3_	30	12.99	0.07	0.05	0.00	1.60	0.03	3.92	0.03	74.37	0.35	2.66	0.09	0.48	0.01	1.92	0.02	0.25	0.01	98.24
B-3_	31	12.95	0.07	0.09	0.02	1.57	0.03	3.95	0.03	74.06	0.35	2.27	0.09	0.50	0.02	1.89	0.02	0.30	0.02	97.58
B-3_	32	12.93	0.07	0.08	0.01	1.25	0.03	3.89	0.03	73.91	0.35	2.43	0.09	0.53	0.01	1.94	0.02	0.26	0.01	97.21
B-3_	33	13.07	0.07	0.09	0.01	1.36	0.03	3.96	0.03	73.96	0.35	2.60	0.09	0.48	0.01	1.86	0.02	0.26	0.01	97.64
B-3_	34	12.72	0.07	0.10	0.01	1.61	0.03	3.95	0.03	74.15	0.35	2.54	0.09	0.47	0.01	1.86	0.02	0.28	0.01	97.67
B-3_	35	12.76	0.07	0.10	0.01	1.72	0.03	3.95	0.03	74.27	0.35	2.34	0.08	0.46	0.01	1.86	0.02	0.26	0.01	97.72
B-3_	36	12.99	0.07	0.08	0.01	1.65	0.03	3.94	0.03	74.67	0.35	2.46	0.09	0.41	0.01	1.76	0.02	0.25	0.01	98.22
B-3_	37	12.60	0.07	0.10	0.01	1.54	0.03	3.95	0.03	74.04	0.35	2.39	0.09	0.42	0.01	1.64	0.02	0.26	0.01	96.94
B-3_	38	12.50	0.07	0.07	0.01	1.49	0.03	3.99	0.03	73.99	0.35	2.61	0.09	0.42	0.01	1.70	0.02	0.28	0.01	97.05
B-3_	39	12.52	0.07	0.06	0.00	1.39	0.03	3.96	0.03	74.60	0.35	2.43	0.09	0.43	0.01	1.74	0.02	0.24	0.01	97.37
B-3_	40	12.90	0.07	0.09	0.01	1.67	0.03	4.02	0.03	74.62	0.35	2.45	0.09	0.45	0.01	1.83	0.02	0.26	0.01	98.30
B-3_	41	12.64	0.07	0.08	0.01	1.71	0.03	4.02	0.03	73.49	0.35	2.43	0.09	0.42	0.01	1.88	0.02	0.25	0.01	96.91
B-3_	42	12.84	0.07	0.09	0.01	1.82	0.03	4.06	0.03	73.84	0.35	2.44	0.09	0.44	0.01	1.93	0.02	0.24	0.01	97.70
B-3_	43	13.02	0.07	0.11	0.01	1.80	0.03	4.01	0.03	73.60	0.35	2.45	0.09	0.49	0.01	2.07	0.02	0.24	0.01	97.80
B-3_	44	13.09	0.07	0.12	0.01	1.75	0.03	4.02	0.03	73.63	0.35	2.64	0.09	0.50	0.01	2.11	0.02	0.27	0.01	98.13
B-3_	45	12.99	0.07	0.10	0.01	1.67	0.03	4.06	0.03	73.85	0.35	2.33	0.08	0.51	0.01	2.09	0.02	0.26	0.01	97.86
B-3_	46	13.06	0.07	0.13	0.01	1.47	0.03	4.11	0.03	73.71	0.35	2.41	0.09	0.50	0.01	2.10	0.02	0.28	0.01	97.77
B-3_	47	13.00	0.07	0.08	0.01	1.76	0.03	4.10	0.03	74.22	0.35	2.37	0.09	0.48	0.01	2.09	0.02	0.27	0.01	98.37
B-3_	48	12.81	0.07	0.10	0.01	1.83	0.03	4.08	0.03	73.53	0.35	2.48	0.09	0.52	0.01	2.10	0.02	0.26	0.01	97.71
B-3_	49	12.93	0.07	0.10	0.01	2.03	0.03	4.13	0.03	73.97	0.35	2.59	0.09	0.51	0.01	2.13	0.02	0.27	0.01	98.65
B-3_	50	13.04	0.07	0.15	0.01	1.95	0.03	4.20	0.03	73.93	0.35	2.51	0.09	0.49	0.01	2.19	0.02	0.25	0.01	98.71
B-3_	51	12.73	0.07	0.08	0.01	1.94	0.03	4.48	0.03	72.06	0.35	2.57	0.09	0.58	0.01	2.09	0.02	0.27	0.01	96.80
B-3_	52	12.28	0.07	0.08	0.01	1.90	0.03	4.30	0.03	72.61	0.34	2.48	0.09	0.55	0.01	1.94	0.02	0.24	0.01	96.39
B-3_	53	11.97	0.06	0.09	0.01	1.81	0.03	4.32	0.03	73.30	0.34	2.25	0.08	0.50	0.01	1.80	0.02	0.25	0.01	96.29
B-3_	54	11.82	0.07	0.07	0.01	1.66	0.03	4.25	0.03	73.97	0.35	2.15	0.08	0.45	0.01	1.75	0.02	0.27	0.01	96.40
B-3_	55	12.21	0.07	0.09	0.01	1.35	0.03	4.21	0.03	73.77	0.35	2.18	0.08	0.46	0.01	1.70	0.02	0.26	0.01	96.23
B-3_	56	11.95	0.06	0.06	0.00	1.65	0.03	4.11	0.03	73.77	0.35	2.14	0.08	0.48	0.01	1.66	0.02	0.24	0.01	96.06
B-3_	57	12.36	0.07	0.05	0.00	1.45	0.03	4.06	0.03	74.58	0.35	2.17	0.08	0.47	0.01	1.71	0.02	0.29	0.01	97.14
B-3_	58	12.42	0.07	0.07	0.01	1.58	0.03	4.07	0.03	73.52	0.35	2.39	0.09	0.52	0.01	1.69	0.02	0.26	0.01	96.52

EA2_3

*B-3_*	59	12.64	0.07	0.08	0.01	1.68	0.03	4.02	0.03	73.27	0.34	2.18	0.08	0.51	0.01	1.68	0.02	0.29	0.01	96.34
*B-3_*	60	12.66	0.07	0.06	0.00	1.46	0.03	3.94	0.03	74.40	0.35	2.15	0.08	0.51	0.01	1.70	0.02	0.28	0.01	97.17
*B-3_*	61	12.74	0.07	0.08	0.01	1.53	0.03	3.96	0.03	74.04	0.35	2.28	0.08	0.47	0.01	1.71	0.02	0.27	0.01	97.08
*B-3_*	62	12.84	0.07	0.08	0.01	1.37	0.03	3.91	0.03	74.39	0.35	2.37	0.09	0.45	0.01	1.74	0.02	0.25	0.01	97.40
*B-3_*	63	12.82	0.07	0.05	0.00	1.48	0.03	3.86	0.03	73.78	0.35	2.28	0.08	0.49	0.01	1.73	0.02	0.28	0.01	96.77
*B-3_*	64	12.78	0.07	0.07	0.01	1.50	0.03	3.85	0.03	74.11	0.35	2.13	0.08	0.45	0.01	1.74	0.02	0.27	0.01	96.91
*B-3_*	65	12.72	0.07	0.07	0.01	1.23	0.03	3.76	0.03	73.98	0.35	2.32	0.08	0.49	0.01	1.76	0.02	0.29	0.01	96.61
*B-3_*	66	12.72	0.07	0.12	0.01	1.47	0.03	3.75	0.03	73.61	0.35	2.29	0.08	0.49	0.01	1.78	0.02	0.25	0.01	96.48
*B-3_*	67	12.80	0.07	0.07	0.01	1.39	0.03	3.68	0.03	74.57	0.35	2.39	0.09	0.51	0.01	1.78	0.02	0.25	0.01	97.44
*B-3_*	68	12.74	0.07	0.12	0.01	1.43	0.03	3.73	0.03	74.50	0.35	2.23	0.08	0.47	0.01	1.80	0.02	0.26	0.01	97.28
*B-3_*	69	12.71	0.07	0.09	0.01	1.24	0.03	3.69	0.03	73.58	0.35	2.29	0.08	0.50	0.01	1.81	0.02	0.26	0.01	96.16
*B-3_*	70	12.57	0.07	0.11	0.01	1.30	0.03	3.68	0.03	74.56	0.35	2.28	0.08	0.48	0.01	1.79	0.02	0.26	0.01	97.03
*B-3_*	71	12.63	0.07	0.10	0.01	1.47	0.03	3.64	0.03	74.85	0.35	2.30	0.08	0.50	0.01	1.79	0.02	0.26	0.01	97.53
*B-3_*	72	12.63	0.07	0.10	0.01	1.43	0.03	3.64	0.03	74.75	0.35	2.30	0.08	0.48	0.01	1.79	0.02	0.28	0.01	97.40
*B-3_*	73	12.38	0.07	0.10	0.02	1.51	0.03	3.56	0.03	75.69	0.35	2.28	0.09	0.49	0.02	1.82	0.02	0.26	0.02	98.10
*B-3_*	74	12.65	0.07	0.11	0.01	0.80	0.02	3.58	0.03	75.69	0.35	2.44	0.09	0.50	0.01	1.83	0.02	0.25	0.01	97.85
C-1_ (First traverse)	1	11.44	0.07	0.12	0.02	2.88	0.04	4.64	0.03	73.33	0.35	2.76	0.10	0.51	0.02	2.02	0.04	0.32	0.02	98.01
C-1_ (First traverse)	2	11.72	0.08	0.11	0.02	1.40	0.03	4.53	0.03	74.19	0.35	3.03	0.11	0.53	0.02	2.04	0.04	0.28	0.02	97.83
C-1_ (First traverse)	3	11.71	0.07	0.07	0.02	1.55	0.03	4.61	0.03	74.05	0.35	2.97	0.11	0.53	0.02	1.96	0.04	0.31	0.02	97.76
C-1_ (First traverse)	4	11.76	0.08	0.10	0.02	1.46	0.03	4.58	0.03	73.23	0.35	2.83	0.10	0.53	0.02	2.11	0.04	0.30	0.02	96.90
C-1_ (First traverse)	5	11.50	0.07	0.10	0.02	1.69	0.04	4.73	0.04	74.62	0.35	2.78	0.10	0.51	0.02	2.06	0.04	0.32	0.02	98.31
C-1_ (First traverse)	6	11.34	0.07	0.06	0.02	1.38	0.03	4.73	0.04	74.24	0.35	2.81	0.10	0.52	0.02	1.98	0.04	0.29	0.02	97.35
C-1_ (First traverse)	7	11.33	0.07	0.07	0.02	1.34	0.03	4.74	0.04	74.15	0.35	2.85	0.10	0.57	0.02	2.08	0.04	0.28	0.02	97.42
C-1_ (First traverse)	8	11.29	0.07	0.11	0.02	1.28	0.03	4.76	0.04	74.04	0.35	2.94	0.10	0.50	0.02	2.10	0.04	0.27	0.02	97.30
C-1_ (First traverse)	9	11.22	0.07	0.04	0.02	1.37	0.03	4.79	0.04	72.91	0.35	3.02	0.11	0.54	0.02	2.04	0.04	0.28	0.02	96.21
C-1_ (First traverse)	10	11.15	0.07	0.08	0.02	1.66	0.04	4.95	0.04	73.43	0.35	2.73	0.10	0.48	0.02	2.08	0.04	0.27	0.02	96.83
C-1_ (First traverse)	11	11.09	0.07	0.11	0.02	1.68	0.04	4.96	0.04	72.55	0.35	3.00	0.11	0.57	0.02	2.15	0.04	0.25	0.02	96.36
C-1_ (First traverse)	12	10.94	0.07	0.12	0.02	1.64	0.04	5.00	0.04	73.23	0.35	2.73	0.10	0.55	0.02	2.19	0.04	0.25	0.02	96.65
C-1_ (First traverse)	13	10.82	0.07	0.11	0.02	1.45	0.03	4.97	0.04	74.22	0.35	2.76	0.10	0.50	0.02	2.21	0.04	0.27	0.02	97.31
C-1_ (First traverse)	14	10.50	0.07	0.11	0.02	1.57	0.03	4.97	0.04	73.98	0.35	2.86	0.10	0.53	0.02	2.28	0.04	0.29	0.02	97.08
C-1_ (First traverse)	15	9.96	0.07	0.08	0.02	1.97	0.04	5.17	0.04	74.21	0.35	3.01	0.10	0.57	0.02	2.36	0.04	0.24	0.02	97.57
C-1_ (First traverse)	16	9.81	0.07	0.15	0.02	1.66	0.04	5.08	0.04	74.06	0.35	3.04	0.11	0.59	0.02	2.48	0.04	0.24	0.02	97.11
C-1_ (First traverse)	17	9.47	0.07	0.12	0.02	2.24	0.04	5.17	0.04	73.28	0.35	3.65	0.11	0.64	0.02	2.60	0.04	0.21	0.02	97.37
C-1_ (First traverse)	18	7.79	0.06	0.09	0.02	2.20	0.04	4.75	0.04	75.28	0.35	3.83	0.12	0.58	0.02	2.93	0.04	0.20	0.02	97.65
C-1_ (First traverse)	19	5.37	0.05	0.12	0.02	1.92	0.04	4.52	0.03	77.90	0.36	4.20	0.12	0.67	0.02	2.75	0.04	0.23	0.02	97.68
C-1_ (First traverse)	20	6.06	0.06	0.07	0.02	1.73	0.04	4.64	0.03	77.02	0.35	4.21	0.12	0.72	0.02	2.42	0.04	0.22	0.02	97.09
C-1_ (First traverse)	21	7.14	0.06	0.10	0.02	2.18	0.04	4.90	0.04	76.69	0.35	3.52	0.11	0.73	0.02	2.20	0.04	0.19	0.02	97.66
C-1_ (First traverse)	22	8.20	0.06	0.06	0.02	2.15	0.04	5.11	0.04	75.05	0.35	3.18	0.11	0.69	0.02	1.94	0.04	0.20	0.02	96.58
C-1_ (First traverse)	23	9.24	0.07	0.08	0.02	1.97	0.04	5.12	0.04	74.75	0.35	3.22	0.11	0.69	0.02	1.91	0.04	0.23	0.02	97.21
C-1_ (First traverse)	24	10.10	0.07	0.09	0.02	1.48	0.03	4.96	0.04	74.32	0.35	3.32	0.11	0.75	0.02	1.93	0.04	0.22	0.02	97.18
C-1_ (First traverse)	25	10.77	0.07	0.12	0.02	1.45	0.03	4.85	0.04	73.38	0.35	3.12	0.11	0.74	0.02	1.96	0.04	0.22	0.02	96.61
C-1_ (First traverse)	26	11.60	0.08	0.08	0.02	1.55	0.03	4.97	0.04	71.41	0.35	3.08	0.11	0.80	0.02	2.10	0.04	0.24	0.02	95.83
C-1_ (First traverse)	27	12.31	0.08	0.05	0.02	1.82	0.04	5.03	0.04	70.80	0.35	3.17	0.11	0.77	0.03	2.07	0.04	0.30	0.02	96.32
C-1_ (First traverse)	28	12.97	0.08	0.09	0.02	2.13	0.04	5.32	0.04	69.71	0.34	3.20	0.11	0.83	0.03	2.18	0.04	0.32	0.02	96.75
C-1_ (First traverse)	29	12.96	0.08	0.09	0.02	1.99	0.04	5.26	0.04	69.79	0.34	3.27	0.11	0.82	0.03	2.09	0.04	0.30	0.02	96.57
C-1_ (First traverse)	30	12.62	0.08	0.08	0.02	1.95	0.04	5.22	0.04	69.62	0.34	3.53	0.11	0.87	0.03	2.16	0.04	0.30	0.02	96.35
C-1_ (First traverse)	31	12.64	0.08	0.11	0.02	1.31	0.03	4.84	0.04	70.61	0.35	3.39	0.11	0.83	0.03	2.14	0.04	0.35	0.02	96.22
C-1_ (First traverse)	32	12.47	0.08	0.09	0.02	1.72	0.04	5.00	0.04	71.44	0.35	3.44	0.11	0.82	0.03	2.08	0.04	0.36	0.02	97.42
C-1_ (First traverse)	33	11.74	0.08	0.09	0.02	1.70	0.04	5.04	0.04	71.99	0.35	3.16	0.11	0.78	0.03	1.85	0.04	0.35	0.02	96.70
C-1_ (First traverse)	34	10.79	0.07	0.11	0.02	1.32	0.03	4.85	0.04	74.86	0.35	2.82	0.10	0.73	0.02	1.58	0.03	0.28	0.02	97.34
C-1_ (First traverse)	35	10.12	0.07	0.06	0.02	1.17	0.03	4.67	0.04	76.08	0.36	2.78	0.10	0.68	0.02	1.47	0.03	0.28	0.02	97.30
C-1_ (First traverse)	36	10.03	0.07	0.01	0.02	1.15	0.03	4.55	0.03	76.09	0.36	2.59	0.10	0.59	0.02	1.38	0.03	0.25	0.02	96.64
C-1_ (First traverse)	37	10.92	0.07	0.07	0.02	1.18	0.03	4.61	0.04	74.76	0.35	2.76	0.10	0.67	0.02	1.38	0.03	0.25	0.02	96.59
C-1_ (First traverse)	38	11.83	0.08	0.07	0.02	1.29	0.03	4.80	0.04	73.74	0.35	2.71	0.10	0.68	0.02	1.47	0.03	0.31	0.02	96.90
C-1_ (First traverse)	39	12.57	0.08	0.13	0.02	1.60	0.04	4.77	0.04	71.86	0.34	2.90	0.11	0.66	0.02	1.62	0.03	0.32	0.02	96.42
C-1_ (First traverse)	40	13.10	0.08	0.07	0.02	1.18	0.03	4.70	0.04	71.51	0.35	3.02	0.11	0.70	0.02	1.62	0.03	0.36	0.02	96.26
C-1_ (First traverse)	41	13.07	0.08	0.09	0.02	1.36	0.03	4.74	0.04	71.43	0.35	3.11	0.11	0.72	0.02	1.59	0.03	0.38	0.02	96.48
C-1_ (First traverse)	42	13.22	0.08	0.12	0.02	1.45	0.03	4.72	0.03	71.17	0.35	3.02	0.11	0.75	0.02	1.64	0.03	0.38	0.02	96.47
C-1_ (First traverse)	43	12.87	0.08	0.09	0.02	1.22	0.03	4.66	0.03	71.80	0.34	3.04	0.11	0.73	0.02	1.52	0.03	0.33	0.02	96.26
C-1_ (First traverse)	44	12.53	0.08	0.07	0.02	1.17	0.03	4.68	0.04	73.23	0.35	2.98	0.10	0.71	0.02	1.43	0.03	0.33	0.02	97.14
*C-2_*	1	12.45	0.08	0.05	0.02	0.90	0.03	3.32	0.03	77.03	0.36	2.14	0.09	0.25	0.02	1.33	0.03	0.21	0.02	97.68
*C-2_*	2	12.95	0.08	0.11	0.02	0.83	0.03	3.74	0.03	79.61	0.37	2.38	0.09	0.34	0.02	1.30	0.03	0.23	0.02	101.49
*C-2_*	3	12.88	0.08	0.08	0.02	0.89	0.03	3.47	0.03	79.26	0.36	2.46	0.10	0.39	0.02	1.83	0.04	0.22	0.02	101.48
*C-2_*	4	13.10	0.08	0.10	0.02	0.72	0.03	3.38	0.03	78.51	0.36	2.56	0.10	0.42	0.02	2.06	0.04	0.22	0.02	101.07
*C-2_*	5	13.60	0.08	0.05	0.02	0.81	0.03	3.35	0.03	77.94	0.36	2.99	0.10	0.41	0.02	2.20	0.04	0.24	0.02	101.59
*C-2_*	6	14.50	0.08	0.10	0.02	0.69	0.03	3.31	0.03	76.51	0.36	2.99	0.11	0.47	0.02	2.36	0.04	0.25	0.02	101.18
*C-2_*	7	13.90	0.08	0.14	0.02	0.89	0.03	3.36	0.03	76.38	0.36	3.11	0.11	0.47	0.02	2.43	0.04	0.25	0.02	100.92
*C-2_*	8	13.86	0.08	0.09	0.02	0.99	0.03	3.34	0.03	75.64	0.36	2.90	0.10	0.47	0.02	2.46	0.04	0.26	0.02	100.01
*C-2_*	9	13.92	0.08	0.14	0.02	0.94	0.03	3.30	0.03	76.31	0.36	2.95	0.10	0.42	0.02	2.48	0.04	0.30	0.02	100.75
*C-2_*	10	13.90	0.08	0.11	0.02	1.06	0.03	3.34	0.03	76.27	0.36	2.82	0.10	0.49	0.02	2.62	0.04	0.26	0.02	100.86
*C-2_*	11	14.15	0.08	0.10	0.02	0.91	0.03	3.34	0.03	76.16	0.36	2.81	0.10	0.51	0.02	2.61	0.04	0.26	0.02	100.84
*C-2_*	12	14.23	0.08	0.10	0.02	0.84	0.03	3.28	0.03	76.05	0.36	2.94	0.10	0.43	0.02	2.54	0.04	0.25	0.02	100.66
*C-2_*	13	14.02	0.08	0.10	0.02	0.90	0.03	3.32	0.03	76.47	0.36	3.02	0.11	0.46	0.02	2.64	0.04	0.26	0.02	101.20
*C-2_*	14	14.17	0.08	0.09	0.02	1.07	0.03	3.38	0.03	74.72	0.35	3.03	0.11	0.48	0.02	2.65	0.04	0.25	0.02	99.84
*C-2_*	15	14.20	0.08	0.10	0.02	1.10	0.03	3.38	0.03	74.68	0.36	2.93	0.10	0.45	0.02	2.59	0.04	0.24	0.02	99.67
*C-2_*	16	14.36	0.08	0.11	0.02	0.87	0.03	3.36	0.03	75.28	0.35	3.23	0.11	0.46	0.02	2.63	0.04	0.29	0.02	100.60
*C-2_*	17	14.29	0.08	0.15	0.02	1.11	0.03	3.39	0.03	75.65	0.36	2.84	0.10	0.50	0.02	2.65	0.04	0.27	0.02	100.86
*C-2_*	18	14.15	0.08	0.13	0.02	1.17	0.03	3.37	0.03	72.25	0.35	2.95	0.10	0.49	0.02	2.57	0.04	0.27	0.02	97.34
*C-2_*	19	14.30	0.08	0.15	0.02	1.00	0.03	3.44	0.03	74.14	0.36	3.05	0.11	0.51	0.02	2.69	0.04	0.28	0.02	99.55
*C-2_*	20	14.28	0.08	0.14	0.02	1.03	0.03	3.44	0.03	75.06	0.35	2.95	0.10	0.51	0.02	2.61	0.04	0.26	0.02	100.28
*C-2_*	21	14.25	0.08	0.07	0.02	1.16	0.03	3.44	0.03	74.64	0.35	2.98	0.10	0.50	0.02	2.58	0.04	0.30	0.02	99.93
*C-2_*	22	14.30	0.08	0.07	0.02	1.29	0.03	3.41	0.03	73.19	0.35	3.08	0.11	0.50	0.02	2.60	0.04	0.28	0.02	98.73
*C-2_*	23	14.42	0.08	0.10	0.02	1.14	0.03	3.48	0.03	74.01	0.36	3.10	0.11	0.53	0.02	2.71	0.04	0.28	0.02	99.76
*C-2_*	24	14.30	0.08	0.12	0.02	1.08	0.03	3.48	0.03	74.60	0.36	2.91	0.10	0.50	0.02	2.60	0.04	0.27	0.02	99.86
*C-2_*	25	14.28	0.08	0.14	0.02	1.08	0.03	3.41	0.03	75.33	0.35	3.01	0.11	0.49	0.02	2.62	0.04	0.27	0.02	100.63
*C-2_*	26	14.32	0.08	0.10	0.02	0.91	0.03	3.40	0.03	74.46	0.36	2.82	0.10	0.51	0.02	2.70	0.04	0.27	0.02	99.50
*C-2_*	27	14.29	0.08	0.12	0.02	1.10	0.03	3.44	0.03	74.84	0.35	2.96	0.11	0.50	0.02	2.63	0.04	0.27	0.02	100.14
*C-2_*	28	14.08	0.08	0.07	0.02	1.02	0.03	3.41	0.03	73.98	0.36	2.87	0.11	0.51	0.02	2.64	0.04	0.27	0.02	98.86
*C-2_*	29	14.08	0.08	0.08	0.02	1.06	0.03	3.38	0.03	74.19	0.36	2.89	0.10	0.52	0.02	2.70	0.04	0.27	0.02	99.17
*C-2_*	30	14.10	0.08	0.07	0.02	1.34	0.03	3.43	0.03	74.36	0.36	3.02	0.11	0.53	0.02	2.59	0.04	0.26	0.02	99.69
*C-2_*	31	13.91	0.08	0.10	0.02	1.22	0.03	3.36	0.03	75.11	0.35	2.88	0.10	0.54	0.02	2.63	0.04	0.25	0.02	100.00
*C-2_*	32	13.91	0.08	0.09	0.02	1.14	0.03	3.46	0.03	75.78	0.36	2.90	0.10	0.50	0.02	2.62	0.04	0.28	0.02	100.69
*C-2_*	33	13.85	0.08	0.09	0.02	0.96	0.03	3.43	0.03	74.72	0.35	3.09	0.11	0.53	0.02	2.66	0.04	0.26	0.02	99.58
*C-2_*	34	13.80	0.08	0.07	0.02	1.11	0.03	3.47	0.03	74.66	0.35	2.85	0.10	0.51	0.02	2.60	0.04	0.27	0.02	99.34
*C-2_*	35	13.62	0.08	0.09	0.02	1.20	0.03	3.45	0.03	71.93	0.35	2.91	0.10	0.51	0.02	2.62	0.04	0.29	0.02	96.63
*C-2_*	36	13.64	0.08	0.12	0.02	1.03	0.03	3.43	0.03	74.11	0.36	2.94	0.10	0.53	0.02	2.62	0.04	0.27	0.02	98.70
*C-2_*	37	13.67	0.08	0.08	0.02	1.19	0.03	3.40	0.03	74.62	0.35	3.13	0.11	0.55	0.02	2.59	0.04	0.29	0.02	99.51
*C-2_*	38	13.52	0.08	0.11	0.02	1.09	0.03	3.46	0.03	73.55	0.35	2.77	0.10	0.53	0.02	2.61	0.04	0.24	0.02	97.88
*C-2_*	39	13.64	0.08	0.11	0.02	0.94	0.03	3.41	0.03	74.24	0.36	3.03	0.11	0.52	0.02	2.55	0.04	0.27	0.02	98.72
*C-2_*	40	13.71	0.08	0.10	0.02	0.87	0.03	3.41	0.03	73.64	0.35	2.96	0.11	0.54	0.02	2.63	0.04	0.31	0.02	98.17
*C-2_*	41	13.50	0.08	0.05	0.02	1.01	0.03	3.41	0.03	75.34	0.35	2.85	0.10	0.53	0.02	2.62	0.04	0.26	0.02	99.57
*C-2_*	42	13.50	0.08	0.07	0.02	1.05	0.03	3.45	0.03	75.24	0.35	2.82	0.10	0.49	0.02	2.57	0.04	0.27	0.02	99.45
*C-2_*	43	13.49	0.08	0.11	0.02	1.13	0.03	3.34	0.03	74.59	0.35	2.91	0.10	0.52	0.02	2.58	0.04	0.27	0.02	98.94
*C-2_*	44	13.53	0.08	0.09	0.02	1.22	0.03	3.41	0.03	73.69	0.35	3.08	0.11	0.53	0.02	2.60	0.04	0.29	0.02	98.44
*C-2_*	45	13.54	0.08	0.12	0.02	1.05	0.03	3.38	0.03	74.35	0.36	2.91	0.10	0.52	0.02	2.58	0.04	0.25	0.02	98.70
*C-2_*	46	13.48	0.08	0.12	0.02	0.94	0.03	3.42	0.03	72.10	0.35	3.03	0.11	0.52	0.02	2.57	0.04	0.28	0.02	96.46
*C-2_*	47	13.30	0.08	0.06	0.02	1.11	0.03	3.44	0.03	74.76	0.35	2.87	0.10	0.53	0.02	2.62	0.04	0.26	0.02	98.95
*C-2_*	48	13.37	0.08	0.12	0.02	1.06	0.03	3.45	0.03	75.23	0.35	3.18	0.11	0.47	0.02	2.56	0.04	0.25	0.02	99.70
*C-2_*	49	13.27	0.08	0.09	0.02	1.26	0.03	3.45	0.03	73.22	0.35	2.86	0.10	0.50	0.02	2.53	0.04	0.28	0.02	97.45
*C-2_*	50	13.37	0.08	0.11	0.02	1.19	0.03	3.37	0.03	74.80	0.35	2.78	0.10	0.54	0.02	2.58	0.04	0.26	0.02	99.00
*C-2_*	51	13.44	0.08	0.11	0.02	1.12	0.03	3.39	0.03	75.20	0.35	2.97	0.10	0.51	0.02	2.54	0.04	0.26	0.02	99.54
*C-2_*	52	13.46	0.08	0.08	0.02	0.87	0.03	3.38	0.03	73.46	0.35	2.80	0.10	0.49	0.02	2.51	0.04	0.29	0.02	97.33
*C-2_*	53	13.40	0.08	0.10	0.02	0.96	0.03	3.41	0.03	74.25	0.36	2.89	0.10	0.50	0.02	2.53	0.04	0.27	0.02	98.30
*C-2_*	54	13.36	0.08	0.10	0.02	0.97	0.03	3.47	0.03	74.74	0.35	2.73	0.10	0.48	0.02	2.53	0.04	0.26	0.02	98.63
*C-2_*	55	13.38	0.08	0.10	0.02	1.15	0.03	3.44	0.03	74.67	0.35	2.86	0.11	0.49	0.02	2.51	0.04	0.27	0.02	98.87
*C-2_*	56	13.28	0.08	0.06	0.02	1.06	0.03	3.42	0.03	74.85	0.35	2.93	0.11	0.48	0.02	2.61	0.04	0.29	0.02	98.97
*C-2_*	57	13.39	0.08	0.06	0.02	1.23	0.03	3.38	0.03	74.87	0.35	2.91	0.10	0.50	0.02	2.52	0.04	0.28	0.02	99.14
*C-2_*	58	13.30	0.08	0.09	0.02	1.20	0.03	3.42	0.03	74.44	0.36	2.96	0.11	0.49	0.02	2.59	0.04	0.25	0.02	98.74
*C-2_*	59	13.14	0.08	0.10	0.02	1.18	0.03	3.38	0.03	74.80	0.35	3.03	0.11	0.50	0.02	2.55	0.04	0.30	0.02	98.98
*C-2_*	60	13.41	0.08	0.10	0.02	0.99	0.03	3.38	0.03	73.51	0.35	2.91	0.10	0.49	0.02	2.59	0.04	0.27	0.02	97.65
*C-2_*	61	13.36	0.08	0.10	0.02	1.10	0.03	3.42	0.03	75.41	0.35	2.81	0.10	0.48	0.02	2.58	0.04	0.25	0.02	99.51
*C-2_*	62	13.38	0.08	0.09	0.02	1.17	0.03	3.38	0.03	73.11	0.35	2.95	0.11	0.53	0.02	2.58	0.04	0.26	0.02	97.45

EA2_4

*C-2_*	63	13.34	0.08	0.11	0.02	1.06	0.03	3.43	0.03	74.33	0.36	2.98	0.11	0.51	0.02	2.49	0.04	0.24	0.02	98.50
*C-2_*	64	13.33	0.08	0.14	0.02	0.94	0.03	3.44	0.03	74.51	0.35	2.80	0.10	0.46	0.02	2.56	0.04	0.26	0.02	98.43
*C-2_*	65	13.25	0.08	0.09	0.02	1.06	0.03	3.42	0.03	74.14	0.36	2.83	0.10	0.49	0.02	2.60	0.04	0.25	0.02	98.14
*C-2_*	66	13.29	0.08	0.12	0.02	1.10	0.03	3.43	0.03	74.54	0.36	2.78	0.10	0.53	0.02	2.61	0.04	0.22	0.02	98.62
*C-2_*	67	13.21	0.08	0.12	0.02	0.94	0.03	3.40	0.03	75.63	0.36	2.89	0.10	0.50	0.02	2.54	0.04	0.27	0.02	99.51
*C-2_*	68	13.11	0.08	0.09	0.02	1.01	0.03	3.40	0.03	74.56	0.36	2.88	0.10	0.45	0.02	2.46	0.04	0.26	0.02	98.22
*C-2_*	69	13.10	0.08	0.08	0.02	1.16	0.03	3.43	0.03	75.21	0.35	2.94	0.10	0.47	0.02	2.50	0.04	0.26	0.02	99.16
*C-2_*	70	13.10	0.08	0.09	0.02	1.10	0.03	3.41	0.03	75.06	0.35	3.15	0.11	0.48	0.02	2.51	0.04	0.27	0.02	99.18
*C-2_*	71	13.12	0.08	0.07	0.02	1.10	0.03	3.33	0.03	74.46	0.36	3.09	0.11	0.50	0.02	2.59	0.04	0.24	0.02	98.51
*C-2_*	72	13.07	0.08	0.10	0.02	1.20	0.03	3.40	0.03	73.30	0.35	2.88	0.10	0.51	0.02	2.56	0.04	0.25	0.02	97.27
*C-2_*	73	13.28	0.08	0.12	0.02	1.01	0.03	3.40	0.03	75.01	0.35	2.83	0.10	0.51	0.02	2.48	0.04	0.29	0.02	98.93
*C-2_*	74	13.03	0.08	0.10	0.02	1.03	0.03	3.39	0.03	72.93	0.35	2.83	0.10	0.48	0.02	2.61	0.04	0.29	0.02	96.69
*C-2_*	75	13.23	0.08	0.04	0.02	1.09	0.03	3.42	0.03	73.74	0.35	2.75	0.10	0.51	0.02	2.57	0.04	0.26	0.02	97.61
*C-2_*	76	13.07	0.08	0.13	0.02	1.02	0.03	3.38	0.03	75.03	0.35	2.95	0.10	0.56	0.02	2.55	0.04	0.29	0.02	98.98
*C-2_*	77	13.36	0.08	0.11	0.02	1.12	0.03	3.43	0.03	74.22	0.36	2.91	0.10	0.51	0.02	2.54	0.04	0.26	0.02	98.45
*C-2_*	78	13.27	0.08	0.11	0.02	1.20	0.03	3.43	0.03	74.22	0.36	2.97	0.10	0.49	0.02	2.52	0.04	0.30	0.02	98.51
*C-2_*	79	13.32	0.08	0.12	0.02	1.09	0.03	3.40	0.03	75.10	0.35	2.82	0.10	0.53	0.02	2.53	0.04	0.28	0.02	99.20
*C-2_*	80	13.43	0.08	0.08	0.02	0.93	0.03	3.43	0.03	74.43	0.35	2.90	0.10	0.50	0.02	2.53	0.04	0.28	0.02	98.51
*C-2_*	81	13.22	0.08	0.10	0.02	1.09	0.03	3.37	0.03	74.71	0.35	2.91	0.11	0.51	0.02	2.58	0.04	0.29	0.02	98.78
*C-2_*	82	13.18	0.08	0.09	0.02	1.10	0.03	3.43	0.03	74.13	0.36	2.85	0.10	0.48	0.02	2.61	0.04	0.26	0.02	98.13
*C-2_*	83	13.25	0.08	0.11	0.02	1.22	0.03	3.43	0.03	74.90	0.35	2.68	0.10	0.52	0.02	2.55	0.04	0.25	0.02	98.90
*C-2_*	84	13.32	0.08	0.06	0.02	1.12	0.03	3.37	0.03	73.10	0.35	2.83	0.10	0.52	0.02	2.58	0.04	0.24	0.02	97.15
*C-2_*	85	13.20	0.08	0.07	0.02	1.16	0.03	3.41	0.03	73.55	0.35	2.73	0.10	0.48	0.02	2.55	0.04	0.28	0.02	97.42
*C-2_*	86	13.07	0.08	0.08	0.02	1.26	0.03	3.47	0.03	74.17	0.36	2.88	0.10	0.50	0.02	2.48	0.04	0.26	0.02	98.18
*C-2_*	87	13.23	0.08	0.08	0.02	0.96	0.03	3.39	0.03	73.40	0.35	2.96	0.10	0.51	0.02	2.64	0.04	0.25	0.02	97.41
*C-2_*	88	13.20	0.08	0.07	0.02	0.92	0.03	3.45	0.03	74.82	0.35	3.05	0.11	0.51	0.02	2.56	0.04	0.29	0.02	98.87
*C-2_*	89	13.24	0.08	0.12	0.02	1.06	0.03	3.39	0.03	74.49	0.35	3.21	0.11	0.49	0.02	2.59	0.04	0.26	0.02	98.84
*C-2_*	90	13.12	0.08	0.13	0.02	1.17	0.03	3.39	0.03	74.28	0.36	2.94	0.10	0.51	0.02	2.55	0.04	0.25	0.02	98.34
*C-2_*	91	13.10	0.08	0.05	0.02	1.17	0.03	3.44	0.03	73.18	0.35	2.98	0.11	0.48	0.02	2.58	0.04	0.29	0.02	97.27
*C-2_*	92	13.09	0.08	0.12	0.02	1.20	0.03	3.42	0.03	74.95	0.35	3.02	0.11	0.51	0.02	2.56	0.04	0.27	0.02	99.13
*C-2_*	93	12.97	0.08	0.10	0.02	1.13	0.03	3.36	0.03	75.18	0.35	2.78	0.10	0.52	0.02	2.52	0.04	0.27	0.02	98.83
*C-2_*	94	13.07	0.08	0.13	0.02	0.92	0.03	3.39	0.03	73.82	0.35	2.96	0.10	0.46	0.02	2.52	0.04	0.28	0.02	97.54
*C-2_*	95	12.96	0.08	0.12	0.02	0.96	0.03	3.38	0.03	75.21	0.35	2.89	0.10	0.50	0.02	2.51	0.04	0.29	0.02	98.82
*C-2_*	96	12.95	0.08	0.12	0.02	1.12	0.03	3.44	0.03	73.70	0.35	2.94	0.10	0.49	0.02	2.47	0.04	0.27	0.02	97.51
*C-2_*	97	12.91	0.08	0.12	0.02	1.07	0.03	3.35	0.03	74.72	0.35	2.77	0.10	0.51	0.02	2.52	0.04	0.28	0.02	98.25
*C-2_*	98	12.86	0.08	0.11	0.02	1.14	0.03	3.43	0.03	75.09	0.35	3.02	0.11	0.47	0.02	2.64	0.04	0.25	0.02	99.01
*C-2_*	99	12.92	0.08	0.12	0.02	1.25	0.03	3.40	0.03	75.06	0.35	2.85	0.10	0.45	0.02	2.46	0.04	0.25	0.02	98.76
*C-2_*	100	12.94	0.08	0.10	0.02	0.82	0.03	3.41	0.03	74.86	0.35	2.86	0.10	0.50	0.02	2.47	0.04	0.28	0.02	98.24
*C-2_*	101	12.87	0.08	0.07	0.02	1.01	0.03	3.47	0.03	75.19	0.35	2.74	0.10	0.43	0.02	2.50	0.04	0.24	0.02	98.53
*C-2_*	102	12.81	0.08	0.10	0.02	1.03	0.03	3.47	0.03	75.42	0.35	2.88	0.10	0.47	0.02	2.49	0.04	0.26	0.02	98.94
*C-2_*	103	12.71	0.08	0.13	0.02	1.09	0.03	3.44	0.03	75.78	0.36	2.89	0.10	0.49	0.02	2.43	0.04	0.26	0.02	99.22
*C-2_*	104	12.74	0.08	0.12	0.02	1.13	0.03	3.39	0.03	75.74	0.36	2.92	0.10	0.48	0.02	2.48	0.04	0.27	0.02	99.28
*C-2_*	105	12.51	0.08	0.11	0.02	1.11	0.03	3.43	0.03	75.15	0.35	2.84	0.10	0.46	0.02	2.46	0.04	0.26	0.02	98.33
*C-2_*	106	12.57	0.08	0.07	0.02	1.19	0.03	3.41	0.03	75.68	0.36	2.83	0.10	0.43	0.02	2.42	0.04	0.27	0.02	98.86
*C-2_*	107	12.59	0.08	0.12	0.02	0.93	0.03	3.39	0.03	76.30	0.36	2.93	0.11	0.47	0.02	2.48	0.04	0.25	0.02	99.46
*C-2_*	108	12.59	0.08	0.11	0.02	0.93	0.03	3.48	0.03	75.20	0.35	2.94	0.10	0.48	0.02	2.42	0.04	0.24	0.02	98.38
*C-2_*	109	12.56	0.08	0.12	0.02	1.07	0.03	3.44	0.03	75.61	0.36	2.88	0.10	0.47	0.02	2.36	0.04	0.25	0.02	98.75
*C-2_*	110	12.52	0.08	0.15	0.02	1.14	0.03	3.41	0.03	75.36	0.35	2.99	0.11	0.48	0.02	2.44	0.04	0.24	0.02	98.74
*C-2_*	111	12.44	0.08	0.08	0.02	1.07	0.03	3.37	0.03	73.67	0.35	2.87	0.10	0.51	0.02	2.43	0.04	0.25	0.02	96.69
*C-2_*	112	12.51	0.08	0.06	0.02	1.14	0.03	3.40	0.03	75.99	0.36	2.90	0.10	0.48	0.02	2.45	0.04	0.25	0.02	99.18
*C-2_*	113	12.39	0.08	0.10	0.02	0.91	0.03	3.44	0.03	76.29	0.36	2.72	0.10	0.47	0.02	2.41	0.04	0.25	0.02	98.98
*C-2_*	114	12.50	0.08	0.08	0.02	1.02	0.03	3.39	0.03	74.01	0.36	2.82	0.10	0.48	0.02	2.36	0.04	0.26	0.02	96.91
*C-2_*	115	12.26	0.08	0.08	0.02	1.04	0.03	3.47	0.03	75.85	0.36	2.92	0.10	0.45	0.02	2.44	0.04	0.27	0.02	98.78
*C-2_*	116	12.40	0.08	0.08	0.02	1.04	0.03	3.42	0.03	74.77	0.35	2.79	0.10	0.47	0.02	2.39	0.04	0.23	0.02	97.60
*C-2_*	117	12.55	0.08	0.11	0.02	1.07	0.03	3.46	0.03	74.54	0.35	2.87	0.10	0.43	0.02	2.46	0.04	0.26	0.02	97.75
*C-2_*	118	12.49	0.08	0.13	0.02	1.25	0.03	3.48	0.03	74.80	0.35	2.82	0.10	0.47	0.02	2.31	0.04	0.25	0.02	98.00
*C-2_*	119	12.44	0.08	0.08	0.02	1.03	0.03	3.43	0.03	74.73	0.35	2.88	0.10	0.49	0.02	2.43	0.04	0.25	0.02	97.76
*C-2_*	120	12.42	0.08	0.07	0.02	0.88	0.03	3.47	0.03	75.13	0.35	2.99	0.11	0.49	0.02	2.56	0.04	0.28	0.02	98.29
*C-2_*	121	12.56	0.08	0.12	0.02	0.89	0.03	3.47	0.03	74.38	0.36	3.12	0.11	0.52	0.02	2.53	0.04	0.25	0.02	97.84
*C-2_*	122	12.38	0.08	0.09	0.02	0.99	0.03	3.46	0.03	74.76	0.35	2.88	0.10	0.48	0.02	2.39	0.04	0.22	0.02	97.65
*C-2_*	123	12.32	0.08	0.11	0.02	0.97	0.03	3.43	0.03	75.05	0.35	2.83	0.10	0.50	0.02	2.43	0.04	0.22	0.02	97.85
*C-2_*	124	12.26	0.08	0.07	0.02	0.89	0.03	3.49	0.03	75.01	0.35	2.80	0.10	0.48	0.02	2.46	0.04	0.25	0.02	97.71
*C-2_*	125	12.04	0.08	0.06	0.02	1.08	0.03	3.50	0.03	74.80	0.35	2.83	0.10	0.47	0.02	2.41	0.04	0.26	0.02	97.45
*C-2_*	126	11.93	0.08	0.11	0.02	0.97	0.03	3.58	0.03	75.92	0.36	2.95	0.11	0.46	0.02	2.35	0.04	0.24	0.02	98.51
*C-2_*	127	11.54	0.08	0.12	0.02	0.91	0.03	3.63	0.03	76.83	0.36	2.80	0.10	0.52	0.02	2.21	0.04	0.22	0.02	98.77
*C-2_*	128	11.22	0.07	0.14	0.02	0.87	0.03	3.70	0.03	76.55	0.36	2.86	0.10	0.46	0.02	2.05	0.04	0.26	0.02	98.11
*C-2_*	129	11.01	0.07	0.07	0.02	1.00	0.03	3.94	0.03	76.90	0.36	2.47	0.10	0.46	0.02	1.68	0.03	0.23	0.02	97.76
*C-2_*	130	10.84	0.07	0.07	0.02	1.11	0.03	4.29	0.03	77.23	0.36	2.47	0.10	0.43	0.02	1.32	0.03	0.22	0.02	97.99
*C-2_*	131	10.09	0.07	0.09	0.02	1.76	0.04	4.84	0.04	77.34	0.36	2.29	0.09	0.35	0.02	1.17	0.03	0.21	0.02	98.14
*C-2_*	132	7.75	0.06	0.10	0.02	2.03	0.04	4.58	0.03	77.32	0.36	3.51	0.11	0.34	0.02	1.76	0.04	0.19	0.02	97.58
*C-2_*	133	7.05	0.06	0.11	0.02	1.49	0.03	4.54	0.03	77.01	0.35	3.99	0.12	0.33	0.02	1.62	0.03	0.15	0.02	96.29
*C-2_*	134	8.02	0.06	0.11	0.02	1.56	0.03	4.66	0.03	77.61	0.36	4.10	0.12	0.28	0.02	1.17	0.03	0.19	0.02	97.70
*C-2_*	135	8.86	0.07	0.12	0.02	1.79	0.04	4.71	0.04	76.58	0.36	3.77	0.12	0.30	0.02	0.86	0.03	0.25	0.02	97.24
*C-2_*	136	9.45	0.07	0.15	0.02	1.30	0.03	4.16	0.03	77.70	0.36	3.88	0.12	0.30	0.02	0.82	0.03	0.24	0.02	98.00
*C-2_*	137	10.12	0.07	0.18	0.02	1.46	0.03	4.33	0.03	76.39	0.36	3.42	0.11	0.29	0.02	0.75	0.03	0.25	0.02	97.20
*C-2_*	138	10.48	0.07	0.13	0.02	2.26	0.04	5.24	0.04	72.72	0.35	3.29	0.11	0.27	0.02	0.73	0.02	0.25	0.02	95.37
*C-2_*	139	10.79	0.07	0.12	0.02	2.25	0.04	5.13	0.04	73.97	0.36	3.26	0.11	0.26	0.02	0.66	0.02	0.22	0.02	96.66
*C-2_*	140	10.88	0.07	0.17	0.02	1.59	0.03	4.53	0.03	76.03	0.36	3.28	0.11	0.28	0.02	0.67	0.02	0.17	0.02	97.60
*C-2_*	141	11.26	0.07	0.13	0.02	1.63	0.04	4.59	0.03	76.23	0.36	3.27	0.11	0.28	0.02	0.69	0.02	0.23	0.02	98.31
*C-2_*	142	11.38	0.07	0.14	0.02	1.84	0.04	4.84	0.04	75.74	0.36	3.39	0.11	0.23	0.02	0.64	0.02	0.18	0.02	98.38
*C-2_*	143	11.11	0.07	0.12	0.02	2.22	0.04	5.15	0.04	75.45	0.35	3.24	0.11	0.26	0.02	0.66	0.02	0.22	0.02	98.43
C-1_(Second traverse)	1	13.64	0.08	0.11	0.02	3.88	0.05	4.99	0.04	71.83	0.35	3.72	0.12	0.71	0.03	2.37	0.04	0.27	0.02	101.53
C-1_(Second traverse)	2	12.92	0.08	0.09	0.02	2.26	0.04	5.08	0.04	73.34	0.35	3.80	0.12	0.75	0.03	2.50	0.04	0.32	0.02	101.06
C-1_(Second traverse)	3	12.97	0.08	0.06	0.02	1.46	0.03	5.00	0.04	75.04	0.35	3.91	0.12	0.68	0.03	2.43	0.04	0.27	0.02	101.83
C-1_(Second traverse)	4	12.68	0.08	0.10	0.02	2.47	0.04	5.18	0.04	73.64	0.35	3.40	0.11	0.64	0.02	2.29	0.04	0.29	0.02	100.69
C-1_(Second traverse)	5	12.76	0.08	0.11	0.02	1.71	0.04	5.08	0.04	74.47	0.35	3.35	0.11	0.64	0.02	2.17	0.04	0.29	0.02	100.58
C-1_(Second traverse)	6	12.58	0.08	0.09	0.02	2.10	0.04	5.10	0.04	74.27	0.36	3.20	0.11	0.58	0.02	2.10	0.04	0.33	0.02	100.35
C-1_(Second traverse)	7	12.85	0.08	0.06	0.02	1.83	0.04	5.05	0.04	73.17	0.35	3.16	0.11	0.54	0.02	1.94	0.04	0.29	0.02	98.90
C-1_(Second traverse)	8	12.90	0.08	0.08	0.02	1.80	0.04	5.06	0.04	75.45	0.35	3.10	0.11	0.54	0.02	1.95	0.04	0.28	0.02	101.16
C-1_(Second traverse)	9	13.01	0.08	0.09	0.02	1.62	0.03	5.05	0.04	74.79	0.35	2.70	0.10	0.55	0.02	1.98	0.04	0.29	0.02	100.09
C-1_(Second traverse)	10	13.24	0.08	0.10	0.02	1.79	0.04	5.11	0.04	74.07	0.36	2.90	0.10	0.54	0.02	1.94	0.04	0.28	0.02	99.96
C-1_(Second traverse)	11	13.34	0.08	0.12	0.02	1.94	0.04	5.12	0.04	74.30	0.36	2.87	0.10	0.53	0.02	1.92	0.04	0.33	0.02	100.47
C-1_(Second traverse)	12	13.53	0.08	0.06	0.02	2.15	0.04	5.09	0.04	72.02	0.35	2.89	0.10	0.54	0.02	1.85	0.04	0.33	0.02	98.46
C-1_(Second traverse)	13	13.84	0.08	0.10	0.02	1.67	0.04	5.06	0.04	73.96	0.36	2.84	0.10	0.48	0.02	1.83	0.04	0.33	0.02	100.11
C-1_(Second traverse)	14	13.75	0.08	0.11	0.02	1.67	0.04	4.96	0.04	73.02	0.35	2.96	0.11	0.53	0.02	1.79	0.04	0.31	0.02	99.10
C-1_(Second traverse)	15	13.82	0.08	0.11	0.02	1.50	0.03	5.00	0.04	71.86	0.35	3.02	0.11	0.52	0.02	1.82	0.04	0.30	0.02	97.95
C-1_(Second traverse)	16	13.86	0.08	0.08	0.02	1.63	0.03	4.88	0.04	73.17	0.35	2.90	0.10	0.51	0.02	1.84	0.04	0.31	0.02	99.18
C-1_(Second traverse)	17	13.90	0.08	0.09	0.02	1.47	0.03	4.93	0.04	72.87	0.35	2.91	0.10	0.57	0.02	1.85	0.04	0.34	0.02	98.93
C-1_(Second traverse)	18	13.99	0.08	0.12	0.02	1.71	0.04	4.91	0.04	72.79	0.35	3.02	0.11	0.61	0.02	1.90	0.04	0.34	0.02	99.39
C-1_(Second traverse)	19	13.74	0.08	0.10	0.02	1.95	0.04	4.84	0.04	72.60	0.35	2.88	0.10	0.53	0.02	1.85	0.04	0.31	0.02	98.80
C-1_(Second traverse)	20	14.02	0.08	0.13	0.02	1.37	0.03	4.78	0.04	73.69	0.35	3.01	0.11	0.53	0.02	1.88	0.04	0.30	0.02	99.72
C-1_(Second traverse)	21	14.05	0.08	0.13	0.02	1.73	0.04	4.78	0.04	73.39	0.35	3.06	0.11	0.55	0.02	1.94	0.04	0.33	0.02	99.96
C-1_(Second traverse)	22	14.03	0.08	0.11	0.02	1.31	0.03	4.74	0.04	73.02	0.35	3.00	0.11	0.53	0.02	1.81	0.04	0.33	0.02	98.88
C-1_(Second traverse)	23	14.06	0.08	0.09	0.02	1.57	0.03	4.67	0.04	73.00	0.35	2.81	0.10	0.57	0.02	1.93	0.04	0.33	0.02	99.02
C-1_(Second traverse)	24	13.96	0.08	0.06	0.02	1.46	0.03	4.70	0.04	72.81	0.35	2.93	0.11	0.60	0.02	1.90	0.04	0.31	0.02	98.73
C-1_(Second traverse)	25	13.90	0.08	0.09	0.02	1.59	0.04	4.64	0.03	72.56	0.35	2.87	0.10	0.56	0.02	1.87	0.04	0.30	0.02	98.38
C-1_(Second traverse)	26	14.05	0.08	0.09	0.02	1.83	0.04	4.61	0.04	72.89	0.35	3.15	0.11	0.56	0.02	1.89	0.04	0.33	0.02	99.40
C-1_(Second traverse)	27	14.11	0.08	0.09	0.02	1.33	0.03	4.53	0.03	73.50	0.35	2.95	0.11	0.59	0.02	1.91	0.04	0.30	0.02	99.31
C-1_(Second traverse)	28	14.09	0.08	0.10	0.02	1.79	0.04	4.58	0.03	72.92	0.35	3.02	0.11	0.52	0.02	1.90	0.04	0.35	0.02	99.28
C-1_(Second traverse)	29	14.33	0.08	0.14	0.02	1.16	0.03	4.39	0.03	73.60	0.35	3.11	0.11	0.56	0.02	1.92	0.04	0.28	0.02	99.49
C-1_(Second traverse)	30	14.10	0.08	0.13	0.02	1.66	0.04	4.47	0.03	70.72	0.35	2.88	0.10	0.55	0.02	1.98	0.04	0.31	0.02	96.80
C-1_(Second traverse)	31	13.98	0.08	0.11	0.02	1.12	0.03	4.43	0.03	72.53	0.35	3.00	0.11	0.54	0.02	1.89	0.04	0.32	0.02	97.92
C-1_(Second traverse)	32	13.95	0.08	0.07	0.02	1.51	0.03	4.36	0.03	73.00	0.35	2.83	0.10	0.55	0.02	2.02	0.04	0.37	0.02	98.66
C-1_(Second traverse)	33	13.85	0.08	0.09	0.02	1.50	0.03	4.39	0.03	73.63	0.35	2.97	0.11	0.58	0.02	1.95	0.04	0.31	0.02	99.28
C-1_(Second traverse)	34	13.93	0.08	0.07	0.02	1.35	0.03	4.26	0.03	73.22	0.35	2.90	0.10	0.59	0.02	2.01	0.04	0.30	0.02	98.64
C-1_(Second traverse)	35	13.84	0.08	0.10	0.02	1.78	0.04	4.33	0.03	73.41	0.35	2.90	0.10	0.57	0.02	1.95	0.04	0.32	0.02	99.20
C-1_(Second traverse)	36	14.17	0.08	0.09	0.02	1.18	0.03	4.26	0.03	74.15	0.36	2.91	0.11	0.58	0.02	1.93	0.04	0.31	0.02	99.58
C-1_(Second traverse)	37	13.93	0.08	0.11	0.02	1.69	0.04	4.26	0.03	71.33	0.35	3.08	0.11	0.59	0.02	1.97	0.04	0.32	0.02	97.28
C-1_(Second traverse)	38	13.89	0.08	0.07	0.02	1.05	0.03	4.20	0.03	73.72	0.35	3.00	0.11	0.58	0.02	2.07	0.04	0.35	0.02	98.93
C-1_(Second traverse)	39	13.90	0.08	0.11	0.02	1.60	0.03	4.22	0.03	73.96	0.36	2.85	0.10	0.57	0.02	2.07	0.04	0.29	0.02	99.57
C-1_(Second traverse)	40	13.87	0.08	0.08	0.02	1.53	0.03	4.15	0.03	72.74	0.35	3.11	0.11	0.59	0.02	1.97	0.04	0.33	0.02	98.37
C-1_(Second traverse)	41	13.91	0.08	0.06	0.02	1.33	0.03	4.20	0.03	73.92	0.35	3.00	0.11	0.58	0.02	1.93	0.04	0.30	0.02	99.22

EA2_5

C-1_(Second traverse)	42	13.98	0.08	0.10	0.02	1.39	0.03	4.11	0.03	72.98	0.35	3.05	0.11	0.59	0.02	1.97	0.04	0.27	0.02	98.44
C-1_(Second traverse)	43	13.82	0.08	0.10	0.02	1.40	0.03	4.12	0.03	72.22	0.35	3.05	0.11	0.60	0.02	2.04	0.04	0.31	0.02	97.66
C-1_(Second traverse)	44	13.87	0.08	0.09	0.02	1.52	0.03	4.11	0.03	73.12	0.35	3.07	0.11	0.56	0.02	2.03	0.04	0.30	0.02	98.67
C-1_(Second traverse)	45	13.89	0.08	0.09	0.02	0.99	0.03	4.05	0.03	73.55	0.35	3.20	0.11	0.56	0.02	2.11	0.04	0.32	0.02	98.75
C-1_(Second traverse)	46	13.83	0.08	0.12	0.02	1.36	0.03	4.03	0.03	74.32	0.36	2.92	0.11	0.56	0.02	2.04	0.04	0.31	0.02	99.49
C-1_(Second traverse)	47	13.76	0.08	0.04	0.02	1.29	0.03	4.04	0.03	71.24	0.35	3.08	0.11	0.56	0.02	2.10	0.04	0.32	0.02	96.42
C-1_(Second traverse)	48	13.77	0.08	0.09	0.02	1.27	0.03	4.01	0.03	73.63	0.35	3.06	0.11	0.54	0.02	2.10	0.04	0.29	0.02	98.76
C-1_(Second traverse)	49	13.94	0.08	0.09	0.02	1.35	0.03	3.98	0.03	73.02	0.35	2.83	0.10	0.55	0.02	2.12	0.04	0.28	0.02	98.16
C-1_(Second traverse)	50	13.78	0.08	0.12	0.02	1.27	0.03	3.98	0.03	73.07	0.35	2.90	0.10	0.58	0.02	2.12	0.04	0.29	0.02	98.11
C-1_(Second traverse)	51	13.92	0.08	0.10	0.02	1.52	0.03	3.99	0.03	73.24	0.35	3.10	0.11	0.55	0.02	2.15	0.04	0.30	0.02	98.88
C-1_(Second traverse)	52	13.96	0.08	0.09	0.02	1.53	0.03	3.91	0.03	72.93	0.35	3.06	0.11	0.57	0.02	2.10	0.04	0.30	0.02	98.45
C-1_(Second traverse)	53	13.97	0.08	0.10	0.02	1.12	0.03	3.95	0.03	72.90	0.35	2.94	0.10	0.59	0.02	2.17	0.04	0.31	0.02	98.05
C-1_(Second traverse)	54	14.00	0.08	0.10	0.02	1.50	0.03	3.94	0.03	73.36	0.35	2.90	0.10	0.57	0.02	2.16	0.04	0.25	0.02	98.77
C-1_(Second traverse)	55	13.99	0.08	0.17	0.02	1.25	0.03	3.89	0.03	72.41	0.35	2.90	0.10	0.58	0.02	2.18	0.04	0.28	0.02	97.64
C-1_(Second traverse)	56	14.03	0.08	0.11	0.02	1.43	0.03	3.88	0.03	73.24	0.35	2.99	0.11	0.56	0.02	2.23	0.04	0.31	0.02	98.77
C-1_(Second traverse)	57	13.85	0.08	0.11	0.02	1.40	0.03	3.92	0.03	73.39	0.35	3.20	0.11	0.60	0.02	2.22	0.04	0.29	0.02	98.97
C-1_(Second traverse)	58	14.01	0.08	0.08	0.02	1.49	0.03	3.93	0.03	72.73	0.35	2.92	0.10	0.58	0.02	2.28	0.04	0.29	0.02	98.32
C-1_(Second traverse)	59	14.06	0.08	0.09	0.02	1.63	0.03	3.85	0.03	72.15	0.35	2.94	0.10	0.54	0.02	2.28	0.04	0.26	0.02	97.79
C-1_(Second traverse)	60	14.19	0.08	0.09	0.02	1.10	0.03	3.80	0.03	72.77	0.35	3.06	0.11	0.59	0.02	2.24	0.04	0.28	0.02	98.11
C-1_(Second traverse)	61	14.29	0.08	0.13	0.02	1.45	0.03	3.86	0.03	72.31	0.35	3.02	0.11	0.60	0.02	2.28	0.04	0.26	0.02	98.20
C-1_(Second traverse)	62	14.23	0.08	0.07	0.02	1.03	0.03	3.81	0.03	72.87	0.35	2.80	0.10	0.53	0.02	2.39	0.04	0.30	0.02	98.02
C-1_(Second traverse)	63	14.25	0.08	0.10	0.02	1.41	0.03	3.84	0.03	72.33	0.35	3.11	0.11	0.58	0.02	2.29	0.04	0.30	0.02	98.21
C-1_(Second traverse)	64	14.34	0.08	0.12	0.02	1.09	0.03	3.82	0.03	73.07	0.35	3.04	0.11	0.57	0.02	2.31	0.04	0.27	0.02	98.64
C-1_(Second traverse)	65	14.32	0.08	0.07	0.02	1.60	0.04	3.80	0.03	72.14	0.35	3.11	0.11	0.59	0.02	2.38	0.04	0.24	0.02	98.24
C-1_(Second traverse)	66	14.27	0.08	0.09	0.02	1.70	0.04	3.88	0.03	72.77	0.35	3.12	0.11	0.59	0.02	2.34	0.04	0.29	0.02	99.06
C-1_(Second traverse)	67	14.34	0.08	0.09	0.02	1.26	0.03	3.84	0.03	73.13	0.35	3.24	0.11	0.55	0.02	2.36	0.04	0.30	0.02	99.11
C-1_(Second traverse)	68	14.36	0.08	0.08	0.02	1.56	0.04	3.77	0.03	72.75	0.35	3.19	0.11	0.56	0.02	2.34	0.04	0.29	0.02	98.90
C-1_(Second traverse)	69	14.56	0.08	0.05	0.02	1.14	0.03	3.77	0.03	72.87	0.35	2.87	0.10	0.55	0.02	2.36	0.04	0.27	0.02	98.44
C-1_(Second traverse)	70	14.48	0.08	0.09	0.02	1.41	0.03	3.78	0.03	72.74	0.35	2.97	0.11	0.57	0.02	2.43	0.04	0.27	0.02	98.74
C-1_(Second traverse)	71	14.39	0.08	0.12	0.02	1.00	0.03	3.76	0.03	73.54	0.35	3.13	0.11	0.54	0.02	2.38	0.04	0.27	0.02	99.12
C-1_(Second traverse)	72	14.37	0.08	0.07	0.02	1.57	0.03	3.78	0.03	70.96	0.35	2.99	0.11	0.59	0.02	2.45	0.04	0.29	0.02	97.07
C-1_(Second traverse)	73	14.31	0.08	0.07	0.02	1.47	0.03	3.82	0.03	72.90	0.35	2.97	0.11	0.58	0.02	2.44	0.04	0.28	0.02	98.84
C-1_(Second traverse)	74	14.30	0.08	0.08	0.02	1.37	0.03	3.79	0.03	73.37	0.35	3.05	0.11	0.60	0.02	2.35	0.04	0.30	0.02	99.21
C-1_(Second traverse)	75	14.55	0.08	0.10	0.02	1.38	0.03	3.78	0.03	71.90	0.35	3.16	0.11	0.54	0.02	2.37	0.04	0.28	0.02	98.06
C-1_(Second traverse)	76	14.25	0.08	0.13	0.02	1.25	0.03	3.79	0.03	73.15	0.35	2.97	0.10	0.56	0.02	2.40	0.04	0.28	0.02	98.79
C-1_(Second traverse)	77	14.51	0.08	0.06	0.02	1.53	0.03	3.83	0.03	72.51	0.35	3.25	0.11	0.62	0.02	2.44	0.04	0.27	0.02	99.02
C-1_(Second traverse)	78	14.54	0.08	0.06	0.02	1.14	0.03	3.76	0.03	71.93	0.35	3.06	0.11	0.56	0.02	2.41	0.04	0.26	0.02	97.72
C-1_(Second traverse)	79	14.40	0.08	0.08	0.02	1.43	0.03	3.80	0.03	72.46	0.35	2.99	0.10	0.58	0.02	2.35	0.04	0.29	0.02	98.39
C-1_(Second traverse)	80	14.42	0.08	0.10	0.02	1.50	0.03	3.82	0.03	72.45	0.35	3.10	0.11	0.60	0.02	2.43	0.04	0.27	0.02	98.69
C-1_(Second traverse)	81	14.51	0.08	0.13	0.02	1.53	0.03	3.77	0.03	72.30	0.35	3.05	0.11	0.61	0.02	2.51	0.04	0.31	0.02	98.71
C-1_(Second traverse)	82	14.58	0.08	0.10	0.02	1.45	0.03	3.76	0.03	72.34	0.35	2.91	0.11	0.57	0.02	2.46	0.04	0.30	0.02	98.47
C-1_(Second traverse)	83	14.63	0.08	0.14	0.02	1.34	0.03	3.85	0.03	72.38	0.35	3.09	0.11	0.58	0.02	2.44	0.04	0.28	0.02	98.73
C-1_(Second traverse)	84	14.82	0.08	0.15	0.02	1.39	0.03	3.77	0.03	72.33	0.35	3.00	0.11	0.60	0.02	2.50	0.04	0.30	0.02	98.85
C-1_(Second traverse)	85	14.78	0.08	0.07	0.02	1.58	0.04	3.84	0.03	71.73	0.35	3.22	0.11	0.61	0.02	2.48	0.04	0.31	0.02	98.62
C-1_(Second traverse)	86	14.64	0.08	0.12	0.02	1.16	0.03	3.77	0.03	71.44	0.35	3.03	0.11	0.62	0.02	2.47	0.04	0.29	0.02	97.54
C-1_(Second traverse)	87	14.79	0.08	0.08	0.02	1.60	0.03	3.84	0.03	72.05	0.35	3.09	0.11	0.57	0.02	2.47	0.04	0.28	0.02	98.77
C-1_(Second traverse)	88	14.87	0.08	0.14	0.02	1.49	0.03	3.84	0.03	70.23	0.34	3.22	0.11	0.60	0.02	2.44	0.04	0.31	0.02	97.14
C-1_(Second traverse)	89	14.88	0.08	0.12	0.02	1.54	0.03	3.84	0.03	71.08	0.35	3.07	0.11	0.62	0.02	2.35	0.04	0.31	0.02	97.81
C-1_(Second traverse)	90	14.86	0.08	0.09	0.02	1.42	0.03	3.89	0.03	70.59	0.35	3.15	0.11	0.58	0.02	2.37	0.04	0.28	0.02	97.23
C-1_(Second traverse)	91	14.75	0.08	0.12	0.02	1.32	0.03	3.87	0.03	71.92	0.35	3.21	0.11	0.63	0.02	2.38	0.04	0.31	0.02	98.51
C-1_(Second traverse)	92	14.71	0.08	0.11	0.02	1.54	0.03	3.93	0.03	72.36	0.35	3.16	0.11	0.61	0.02	2.39	0.04	0.29	0.02	99.10
C-1_(Second traverse)	93	14.78	0.08	0.10	0.02	1.13	0.03	3.84	0.03	72.24	0.35	3.15	0.11	0.63	0.02	2.35	0.04	0.29	0.02	98.51
C-1_(Second traverse)	94	14.62	0.08	0.08	0.02	1.50	0.03	3.91	0.03	70.40	0.34	3.16	0.11	0.61	0.02	2.35	0.04	0.31	0.02	96.94
C-1_(Second traverse)	95	14.54	0.08	0.13	0.02	1.00	0.03	3.99	0.03	71.44	0.35	3.24	0.11	0.65	0.02	2.38	0.04	0.30	0.02	97.67
C-1_(Second traverse)	96	14.52	0.08	0.12	0.02	1.71	0.04	3.93	0.03	72.42	0.35	3.02	0.11	0.60	0.02	2.31	0.04	0.30	0.02	98.93
C-1_(Second traverse)	97	14.35	0.08	0.09	0.02	1.27	0.03	3.92	0.03	70.91	0.35	3.41	0.11	0.60	0.02	2.26	0.04	0.32	0.02	97.12
C-1_(Second traverse)	98	14.28	0.08	0.07	0.02	1.46	0.03	3.96	0.03	72.28	0.35	3.01	0.11	0.57	0.02	2.22	0.04	0.32	0.02	98.17
C-1_(Second traverse)	99	14.17	0.08	0.07	0.02	1.55	0.03	4.03	0.03	72.92	0.35	2.96	0.10	0.61	0.02	2.18	0.04	0.27	0.02	98.76
C-1_(Second traverse)	100	14.15	0.08	0.10	0.02	1.08	0.03	3.97	0.03	72.43	0.35	3.07	0.11	0.58	0.02	2.18	0.04	0.29	0.02	97.86
C-1_(Second traverse)	101	14.13	0.08	0.12	0.02	1.40	0.03	4.10	0.03	73.04	0.35	3.03	0.11	0.59	0.02	2.16	0.04	0.30	0.02	98.86
C-1_(Second traverse)	102	14.00	0.08	0.11	0.02	1.08	0.03	4.08	0.03	72.89	0.35	3.15	0.11	0.56	0.02	2.17	0.04	0.29	0.02	98.33
C-1_(Second traverse)	103	14.11	0.08	0.12	0.02	1.60	0.04	4.13	0.03	72.39	0.35	3.18	0.11	0.58	0.02	2.15	0.04	0.32	0.02	98.58
C-1_(Second traverse)	104	13.92	0.08	0.11	0.02	1.25	0.03	4.08	0.03	72.84	0.35	3.12	0.11	0.60	0.02	2.04	0.04	0.28	0.02	98.24
C-1_(Second traverse)	105	14.00	0.08	0.09	0.02	1.52	0.03	4.20	0.03	70.43	0.35	3.13	0.11	0.63	0.02	2.01	0.04	0.30	0.02	96.31
C-1_(Second traverse)	106	13.94	0.08	0.07	0.02	1.42	0.03	4.20	0.03	71.93	0.35	2.91	0.11	0.59	0.02	2.01	0.04	0.34	0.02	97.41
C-1_(Second traverse)	107	13.94	0.08	0.06	0.02	1.33	0.03	4.20	0.03	72.46	0.35	3.00	0.11	0.59	0.02	2.02	0.04	0.34	0.02	97.94
C-1_(Second traverse)	108	14.01	0.08	0.09	0.02	1.32	0.03	4.34	0.03	72.07	0.35	3.18	0.11	0.58	0.02	2.01	0.04	0.30	0.02	97.88
C-1_(Second traverse)	109	13.95	0.08	0.10	0.02	1.35	0.03	4.33	0.03	73.26	0.35	3.03	0.11	0.58	0.02	2.03	0.04	0.31	0.02	98.94
C-1_(Second traverse)	110	13.91	0.08	0.08	0.02	1.64	0.04	4.41	0.03	70.67	0.35	2.94	0.11	0.58	0.02	2.04	0.04	0.34	0.02	96.62
C-1_(Second traverse)	111	13.90	0.08	0.12	0.02	1.11	0.03	4.35	0.03	72.48	0.35	2.77	0.10	0.56	0.02	1.98	0.04	0.31	0.02	97.58
C-1_(Second traverse)	112	13.79	0.08	0.11	0.02	1.75	0.04	4.50	0.03	71.45	0.35	3.09	0.11	0.59	0.02	1.92	0.04	0.36	0.02	97.55
C-1_(Second traverse)	113	13.88	0.08	0.08	0.02	1.66	0.04	4.56	0.03	71.37	0.35	3.18	0.11	0.59	0.02	1.95	0.04	0.31	0.02	97.57
C-1_(Second traverse)	114	13.97	0.08	0.05	0.02	1.45	0.03	4.59	0.03	72.72	0.35	2.77	0.10	0.57	0.02	1.84	0.04	0.31	0.02	98.27
C-1_(Second traverse)	115	13.84	0.08	0.16	0.02	1.43	0.03	4.60	0.03	72.96	0.35	2.91	0.10	0.57	0.02	1.93	0.04	0.33	0.02	98.73
C-1_(Second traverse)	116	13.79	0.08	0.06	0.02	1.46	0.03	4.73	0.04	72.65	0.35	2.98	0.11	0.58	0.02	1.87	0.04	0.34	0.02	98.46
C-1_(Second traverse)	117	14.05	0.08	0.12	0.02	1.47	0.03	4.72	0.04	70.98	0.35	3.07	0.10	0.53	0.02	1.89	0.04	0.32	0.02	97.14
C-1_(Second traverse)	118	13.92	0.08	0.09	0.02	1.61	0.04	4.86	0.04	73.29	0.35	3.00	0.11	0.55	0.02	1.79	0.04	0.34	0.02	99.46
C-1_(Second traverse)	119	13.92	0.08	0.14	0.02	1.93	0.04	4.87	0.04	72.06	0.35	3.30	0.11	0.52	0.02	1.83	0.04	0.29	0.02	98.86
C-1_(Second traverse)	120	13.99	0.08	0.10	0.02	1.83	0.04	5.04	0.04	71.45	0.35	3.10	0.11	0.56	0.02	1.82	0.04	0.32	0.02	98.21
C-1_(Second traverse)	121	14.03	0.08	0.08	0.02	1.65	0.04	5.04	0.04	71.85	0.35	2.91	0.10	0.59	0.02	1.80	0.04	0.34	0.02	98.29
C-1_(Second traverse)	122	14.00	0.08	0.10	0.02	1.81	0.04	5.14	0.04	72.78	0.35	2.90	0.11	0.54	0.02	1.83	0.04	0.33	0.02	99.44
C-1_(Second traverse)	123	14.00	0.08	0.12	0.02	1.62	0.04	5.16	0.04	72.00	0.35	2.82	0.10	0.52	0.02	1.88	0.04	0.34	0.02	98.46
C-1_(Second traverse)	124	13.84	0.08	0.07	0.02	1.47	0.03	5.20	0.04	71.84	0.35	2.80	0.10	0.54	0.02	1.90	0.04	0.35	0.02	98.01
C-1_(Second traverse)	125	13.75	0.08	0.11	0.02	1.94	0.04	5.33	0.04	72.95	0.35	2.92	0.10	0.54	0.02	1.90	0.04	0.33	0.02	99.77
C-1_(Second traverse)	126	13.63	0.08	0.08	0.02	1.56	0.03	5.19	0.04	72.53	0.35	2.87	0.10	0.57	0.02	1.87	0.04	0.34	0.02	98.64
C-1_(Second traverse)	127	13.23	0.08	0.06	0.02	2.36	0.04	5.52	0.04	72.18	0.35	3.07	0.11	0.52	0.02	1.88	0.04	0.29	0.02	99.11
C-1_(Second traverse)	128	12.98	0.08	0.09	0.02	1.91	0.04	5.47	0.04	73.11	0.35	3.11	0.11	0.55	0.02	1.95	0.04	0.34	0.02	99.52
C-1_(Second traverse)	129	12.17	0.08	0.03	0.02	2.62	0.04	5.52	0.04	71.95	0.35	3.01	0.11	0.61	0.02	1.94	0.04	0.29	0.02	98.14
C-1_(Second traverse)	130	11.88	0.08	0.14	0.02	2.43	0.04	5.54	0.04	72.24	0.35	3.23	0.11	0.66	0.02	2.07	0.04	0.28	0.02	98.48
C-1_(Second traverse)	131	11.47	0.08	0.11	0.02	2.38	0.04	5.45	0.04	72.97	0.35	3.50	0.11	0.62	0.02	2.23	0.04	0.28	0.02	99.01
C-1_(Second traverse)	132	9.62	0.07	0.14	0.02	2.83	0.05	5.22	0.04	71.21	0.35	4.16	0.12	0.62	0.02	2.83	0.04	0.24	0.02	96.87
C-1_(Second traverse)	133	8.20	0.06	0.14	0.02	1.89	0.04	4.84	0.04	74.80	0.35	4.03	0.12	0.60	0.02	3.04	0.05	0.19	0.02	97.74
C-1_(Second traverse)	134	8.15	0.06	0.09	0.02	3.03	0.05	5.18	0.04	74.57	0.35	3.02	0.11	0.52	0.02	2.81	0.04	0.22	0.02	97.59
C-1_(Second traverse)	135	9.04	0.07	0.07	0.02	1.99	0.04	5.15	0.04	75.94	0.36	2.84	0.10	0.46	0.02	2.40	0.04	0.21	0.02	98.11
C-1_(Second traverse)	136	10.40	0.07	0.07	0.02	3.29	0.05	5.70	0.04	74.01	0.36	2.73	0.10	0.42	0.02	1.78	0.04	0.22	0.02	98.61
C-1_(Second traverse)	137	10.80	0.07	0.08	0.02	1.93	0.04	5.12	0.04	74.75	0.35	2.61	0.10	0.40	0.02	1.73	0.04	0.26	0.02	97.67
C-1_(Second traverse)	138	10.72	0.07	0.08	0.02	2.40	0.04	5.39	0.04	74.42	0.36	2.71	0.10	0.43	0.02	1.73	0.04	0.25	0.02	98.13
C-1_(Second traverse)	139	10.72	0.07	0.08	0.02	2.42	0.04	5.14	0.04	73.98	0.36	2.76	0.10	0.49	0.02	1.80	0.04	0.22	0.02	97.61
C-1_(Second traverse)	140	10.69	0.07	0.08	0.02	2.18	0.04	5.19	0.04	74.14	0.36	2.74	0.10	0.48	0.02	1.84	0.04	0.22	0.02	97.57
C-1_(Second traverse)	141	10.49	0.07	0.10	0.02	3.10	0.05	5.62	0.04	73.17	0.35	2.71	0.10	0.48	0.02	1.91	0.04	0.24	0.02	97.83
C-1_(Second traverse)	142	10.68	0.07	0.08	0.02	1.90	0.04	5.07	0.04	73.44	0.35	2.93	0.10	0.50	0.02	1.89	0.04	0.24	0.02	96.73
C-1_(Second traverse)	143	10.46	0.07	0.08	0.02	3.28	0.05	5.59	0.04	74.18	0.36	2.89	0.10	0.49	0.02	1.91	0.04	0.25	0.02	99.12
C-1_(Second traverse)	144	10.76	0.07	0.15	0.02	2.05	0.04	5.14	0.04	74.36	0.35	2.72	0.10	0.52	0.02	1.97	0.04	0.24	0.02	97.91
C-1_(Second traverse)	145	10.68	0.07	0.11	0.02	2.97	0.05	5.55	0.04	74.19	0.36	2.55	0.10	0.46	0.02	1.93	0.04	0.23	0.02	98.67
C-1_(Second traverse)	146	11.02	0.07	0.08	0.02	2.47	0.04	5.35	0.04	75.31	0.35	2.69	0.10	0.48	0.02	1.86	0.04	0.23	0.02	99.49
C-1_(Second traverse)	147	11.19	0.07	0.07	0.02	2.04	0.04	5.28	0.04	74.31	0.36	2.66	0.10	0.48	0.02	1.76	0.04	0.22	0.02	98.02
C-1_(Second traverse)	148	11.38	0.08	0.10	0.02	2.20	0.04	5.26	0.04	73.67	0.35	2.59	0.10	0.46	0.02	1.80	0.04	0.28	0.02	97.73
C-1_(Second traverse)	149	11.42	0.07	0.07	0.02	1.96	0.04	5.18	0.04	74.52	0.35	2.79	0.10	0.48	0.02	1.71	0.04	0.26	0.02	98.39
C-1_(Second traverse)	150	11.31	0.07	0.10	0.02	2.25	0.04	5.29	0.04	73.58	0.35	3.01	0.11	0.49	0.02	1.60	0.03	0.28	0.02	97.90
C-1_(Second traverse)	151	11.01	0.07	0.10	0.02	2.03	0.04	5.18	0.04	74.16	0.36	3.19	0.11	0.54	0.02	1.55	0.03	0.30	0.02	98.06
C-1_(Second traverse)	152	10.48	0.07	0.12	0.02	2.14	0.04	5.42	0.04	74.17	0.36	3.80	0.12	0.51	0.02	1.48	0.03	0.27	0.02	98.39
C-1_(Second traverse)	153	10.29	0.07	0.11	0.02	1.65	0.04	5.25	0.04	74.51	0.35	4.28	0.12	0.57	0.02	1.50	0.03	0.38	0.02	98.55
C-3_(First traverse)	1	11.87	0.13	0.12	0.03	4.92	0.06	5.83	0.04	72.99	0.34	2.75	0.10	0.54	0.02	2.13	0.04	0.22	0.02	101.37
C-3_(First traverse)	2	12.33	0.13	0.11	0.03	2.57	0.04	5.73	0.04	72.63	0.33	2.70	0.10	0.53	0.02	2.11	0.04	0.19	0.02	98.90
C-3_(First traverse)	3	12.49	0.14	0.13	0.02	2.99	0.05	5.85	0.04	73.05	0.34	2.75	0.10	0.53	0.02	2.00	0.04	0.20	0.02	99.99
C-3_(First traverse)	4	12.66	0.14	0.11	0.02	3.13	0.05	5.87	0.04	74.21	0.34	2.61	0.10	0.53	0.02	1.89	0.04	0.20	0.02	101.21
C-3_(First traverse)	5	12.82	0.14	0.09	0.02	3.22	0.05	5.92	0.04	71.42	0.34	2.56	0.09	0.46	0.02	1.82	0.03	0.22	0.02	98.52
C-3_(First traverse)	6	13.06	0.14	0.06	0.02	2.85	0.04	5.85	0.04	74.26	0.34	2.31	0.09	0.46	0.02	1.80	0.03	0.25	0.02	100.90
C-3_(First traverse)	7	13.26	0.14	0.06	0.02	2.61	0.04	5.82	0.04	72.66	0.33	2.26	0.09	0.44	0.02	1.73	0.03	0.24	0.02	99.09
C-3_(First traverse)	8	13.71	0.14	0.09	0.02	2.30	0.04	5.66	0.04	74.44	0.34	2.33	0.09	0.43	0.02	1.70	0.03	0.23	0.02	100.89
C-3_(First traverse)	9	13.57	0.14	0.09	0.02	2.48	0.04	5.84	0.04	73.60	0.34	2.41	0.09	0.44	0.02	1.68	0.03	0.24	0.02	100.36
C-3_(First traverse)	10	13.55	0.14	0.08	0.02	2.68	0.04	5.87	0.04	73.28	0.34	2.18	0.09	0.43	0.02	1.64	0.03	0.25	0.02	99.95

EA2_6

C-3_(First traverse)	11	13.40	0.14	0.07	0.02	2.91	0.04	5.92	0.04	72.77	0.33	2.45	0.09	0.45	0.02	1.57	0.03	0.25	0.02	99.79
C-3_(First traverse)	12	14.01	0.14	0.11	0.02	1.90	0.04	5.41	0.04	73.29	0.34	2.29	0.09	0.44	0.02	1.67	0.03	0.24	0.02	99.36
C-3_(First traverse)	13	13.79	0.14	0.16	0.02	2.53	0.04	5.91	0.04	73.09	0.34	2.48	0.09	0.44	0.02	1.55	0.03	0.25	0.02	100.20
C-3_(First traverse)	14	14.08	0.14	0.11	0.02	2.42	0.04	5.74	0.04	73.22	0.34	2.25	0.09	0.45	0.02	1.58	0.03	0.25	0.02	100.09
C-3_(First traverse)	15	14.17	0.14	0.09	0.02	2.32	0.04	5.73	0.04	72.84	0.34	2.41	0.09	0.40	0.02	1.64	0.03	0.23	0.02	99.84
C-3_(First traverse)	16	14.06	0.14	0.09	0.02	2.40	0.04	5.80	0.04	72.02	0.34	2.46	0.09	0.44	0.02	1.59	0.03	0.24	0.02	99.10
C-3_(First traverse)	17	14.14	0.14	0.12	0.02	3.01	0.04	5.90	0.04	72.82	0.33	2.45	0.09	0.46	0.02	1.67	0.03	0.24	0.02	100.81
C-3_(First traverse)	18	13.93	0.14	0.08	0.02	2.70	0.04	5.87	0.04	71.72	0.34	2.38	0.09	0.45	0.02	1.61	0.03	0.26	0.02	99.00
C-3_(First traverse)	19	14.10	0.14	0.09	0.02	2.84	0.04	5.84	0.04	73.42	0.34	2.40	0.09	0.43	0.02	1.67	0.03	0.23	0.02	101.03
C-3_(First traverse)	20	14.08	0.14	0.06	0.02	2.84	0.04	5.86	0.04	73.29	0.34	2.41	0.09	0.42	0.02	1.59	0.03	0.24	0.02	100.80
C-3_(First traverse)	21	14.27	0.14	0.07	0.02	2.56	0.04	5.81	0.04	73.13	0.34	2.27	0.09	0.41	0.02	1.56	0.03	0.24	0.02	100.32
C-3_(First traverse)	22	14.09	0.14	0.08	0.02	2.08	0.04	5.48	0.04	74.36	0.34	2.46	0.09	0.44	0.02	1.64	0.03	0.23	0.02	100.86
C-3_(First traverse)	23	14.29	0.14	0.06	0.02	1.74	0.04	5.38	0.04	73.72	0.34	2.29	0.09	0.42	0.02	1.60	0.03	0.23	0.02	99.73
C-3_(First traverse)	24	14.13	0.14	0.06	0.02	2.61	0.04	5.87	0.04	73.42	0.34	2.56	0.10	0.42	0.02	1.61	0.03	0.27	0.02	100.94
C-3_(First traverse)	25	14.02	0.14	0.09	0.02	3.09	0.05	5.95	0.04	72.32	0.34	2.45	0.09	0.46	0.02	1.66	0.03	0.23	0.02	100.28
C-3_(First traverse)	26	13.75	0.14	0.08	0.02	2.98	0.04	5.86	0.04	72.99	0.34	2.52	0.09	0.44	0.02	1.69	0.03	0.21	0.02	100.51
C-3_(First traverse)	27	13.78	0.14	0.08	0.02	2.77	0.04	5.80	0.04	73.54	0.34	2.49	0.09	0.45	0.02	1.63	0.03	0.24	0.02	100.78
C-3_(First traverse)	28	13.78	0.14	0.13	0.02	2.58	0.04	5.81	0.04	73.66	0.34	2.38	0.09	0.47	0.02	1.64	0.03	0.24	0.02	100.68
C-3_(First traverse)	29	13.73	0.14	0.06	0.02	2.56	0.04	5.68	0.04	73.39	0.34	2.47	0.09	0.42	0.02	1.62	0.03	0.25	0.02	100.17
C-3_(First traverse)	30	13.60	0.14	0.08	0.02	2.79	0.04	5.85	0.04	73.37	0.34	2.44	0.09	0.44	0.02	1.75	0.03	0.22	0.02	100.54
C-3_(First traverse)	31	13.45	0.14	0.12	0.03	3.02	0.05	5.87	0.04	72.74	0.33	2.43	0.09	0.45	0.02	1.65	0.03	0.20	0.02	99.93
C-3_(First traverse)	32	13.53	0.14	0.04	0.02	3.13	0.05	5.85	0.04	72.91	0.34	2.63	0.10	0.41	0.02	1.65	0.03	0.22	0.02	100.37
C-3_(First traverse)	33	13.50	0.14	0.10	0.02	2.70	0.04	5.78	0.04	73.10	0.34	2.40	0.09	0.41	0.02	1.75	0.03	0.23	0.02	99.98
C-3_(First traverse)	34	13.61	0.14	0.08	0.02	2.00	0.04	5.49	0.04	73.22	0.34	2.37	0.09	0.45	0.02	1.75	0.03	0.24	0.02	99.21
C-3_(First traverse)	35	13.66	0.14	0.05	0.02	2.22	0.04	5.57	0.04	73.28	0.34	2.57	0.09	0.41	0.02	1.71	0.03	0.25	0.02	99.72
C-3_(First traverse)	36	13.40	0.14	0.11	0.03	2.58	0.04	5.73	0.04	72.42	0.34	2.51	0.09	0.40	0.02	1.75	0.03	0.25	0.02	99.14
C-3_(First traverse)	37	13.26	0.14	0.08	0.02	2.53	0.04	5.74	0.04	73.81	0.34	2.45	0.09	0.47	0.02	1.71	0.03	0.26	0.02	100.31
C-3_(First traverse)	38	12.91	0.14	0.08	0.02	3.08	0.05	5.91	0.04	73.06	0.34	2.52	0.09	0.44	0.02	1.72	0.03	0.23	0.02	99.95
C-3_(First traverse)	39	13.00	0.14	0.11	0.02	3.29	0.05	5.87	0.04	72.11	0.34	2.53	0.09	0.46	0.02	1.70	0.03	0.21	0.02	99.29
C-3_(First traverse)	40	13.24	0.14	0.06	0.02	3.08	0.05	5.97	0.04	73.27	0.34	2.35	0.09	0.48	0.02	1.70	0.03	0.24	0.02	100.39
C-3_(First traverse)	41	12.96	0.14	0.11	0.02	2.98	0.04	5.91	0.04	71.89	0.34	2.44	0.09	0.45	0.02	1.84	0.03	0.23	0.02	98.81
C-3_(First traverse)	42	13.26	0.14	0.09	0.02	2.66	0.04	5.78	0.04	73.01	0.34	2.52	0.09	0.46	0.02	1.82	0.03	0.24	0.02	99.84
C-3_(First traverse)	43	13.13	0.14	0.09	0.02	2.68	0.04	5.81	0.04	72.56	0.34	2.67	0.10	0.50	0.02	1.85	0.03	0.19	0.02	99.48
C-3_(First traverse)	44	13.20	0.14	0.11	0.02	3.32	0.05	5.90	0.04	73.51	0.34	2.46	0.09	0.44	0.02	1.80	0.03	0.18	0.02	100.92
C-3_(First traverse)	45	13.02	0.14	0.10	0.02	2.23	0.04	5.49	0.04	73.35	0.34	2.47	0.09	0.47	0.02	1.85	0.04	0.21	0.02	99.19
C-3_(First traverse)	46	12.82	0.14	0.08	0.02	3.08	0.05	5.82	0.04	73.76	0.34	2.72	0.10	0.44	0.02	1.87	0.03	0.21	0.02	100.79
C-3_(First traverse)	47	12.61	0.13	0.09	0.02	3.22	0.05	5.90	0.04	72.72	0.33	2.67	0.10	0.49	0.02	1.92	0.04	0.17	0.02	99.79
C-3_(First traverse)	48	12.88	0.14	0.07	0.02	2.85	0.04	5.84	0.04	72.31	0.34	2.73	0.10	0.52	0.02	1.87	0.04	0.20	0.02	99.28
C-3_(First traverse)	49	13.09	0.14	0.06	0.02	2.54	0.04	5.70	0.04	73.14	0.34	2.75	0.10	0.49	0.02	1.95	0.04	0.22	0.02	99.94
C-3_(First traverse)	50	12.71	0.14	0.08	0.02	2.75	0.04	5.76	0.04	72.21	0.34	2.67	0.10	0.45	0.02	1.94	0.04	0.22	0.02	98.79
C-3_(First traverse)	51	12.73	0.14	0.11	0.02	2.88	0.04	5.82	0.04	72.75	0.33	2.58	0.10	0.51	0.02	1.91	0.04	0.21	0.02	99.50
C-3_(First traverse)	52	12.71	0.14	0.08	0.02	3.39	0.05	5.92	0.04	72.91	0.34	2.52	0.09	0.52	0.02	1.84	0.03	0.19	0.02	100.09
C-3_(First traverse)	53	12.93	0.14	0.04	0.02	3.55	0.05	5.89	0.04	72.42	0.34	2.73	0.10	0.48	0.02	1.78	0.03	0.19	0.02	100.02
C-3_(First traverse)	54	12.91	0.14	0.09	0.02	3.17	0.05	5.89	0.04	73.13	0.34	2.61	0.10	0.52	0.02	1.80	0.03	0.24	0.02	100.35
C-3_(First traverse)	55	13.07	0.14	0.11	0.02	3.12	0.05	5.89	0.04	72.62	0.33	2.70	0.10	0.48	0.02	1.86	0.03	0.23	0.02	100.08
C-3_(First traverse)	56	12.72	0.14	0.12	0.02	2.17	0.04	5.38	0.04	73.56	0.34	2.82	0.10	0.50	0.02	1.88	0.04	0.19	0.02	99.34
C-3_(First traverse)	57	12.73	0.14	0.11	0.02	2.56	0.04	5.57	0.04	73.51	0.34	2.52	0.10	0.50	0.02	1.84	0.03	0.24	0.02	99.58
C-3_(First traverse)	58	12.68	0.14	0.07	0.02	3.13	0.05	5.72	0.04	72.72	0.33	2.61	0.10	0.48	0.02	1.94	0.04	0.23	0.02	99.58
C-3_(First traverse)	59	12.54	0.14	0.14	0.02	3.47	0.05	5.75	0.04	72.32	0.34	2.66	0.10	0.51	0.02	2.07	0.04	0.23	0.02	99.69
C-3_(First traverse)	60	12.71	0.14	0.09	0.02	3.31	0.05	5.81	0.04	72.31	0.34	2.83	0.10	0.57	0.02	2.26	0.04	0.22	0.02	100.11
C-3_(First traverse)	61	12.76	0.14	0.11	0.02	2.94	0.04	5.60	0.04	70.74	0.33	3.01	0.10	0.57	0.02	2.48	0.04	0.22	0.02	98.42
C-3_(First traverse)	62	12.18	0.13	0.19	0.03	2.63	0.04	5.40	0.04	71.84	0.34	3.93	0.12	0.67	0.02	2.82	0.04	0.22	0.02	99.88
C-3_(First traverse)	63	10.12	0.12	0.19	0.03	2.29	0.04	5.15	0.04	72.33	0.33	4.29	0.12	0.68	0.02	2.72	0.04	0.24	0.02	98.01
C-3_(First traverse)	64	13.11	0.14	0.11	0.02	2.27	0.04	5.58	0.04	71.69	0.34	3.55	0.11	0.58	0.02	2.01	0.04	0.24	0.02	99.14
C-3_(First traverse)	65	14.23	0.14	0.10	0.03	2.33	0.04	5.60	0.04	71.72	0.34	2.88	0.10	0.54	0.02	1.52	0.03	0.29	0.02	99.21
C-3_(First traverse)	66	15.12	0.15	0.11	0.03	2.16	0.04	5.47	0.04	72.42	0.34	2.97	0.10	0.59	0.02	1.22	0.03	0.27	0.02	100.32
C-3_(First traverse)	67	15.36	0.15	0.13	0.02	1.88	0.04	5.26	0.04	72.84	0.34	2.85	0.10	0.64	0.02	1.12	0.03	0.29	0.02	100.37
C-3_(First traverse)	68	16.36	0.15	0.12	0.02	1.30	0.03	5.00	0.04	72.25	0.34	3.03	0.10	0.74	0.02	1.19	0.03	0.34	0.02	100.34
C-3_(First traverse)	69	18.74	0.16	0.06	0.02	1.88	0.04	5.07	0.04	68.13	0.33	3.41	0.11	0.92	0.03	1.57	0.03	0.46	0.02	100.24
C-3_(First traverse)	70	19.19	0.16	0.14	0.03	1.79	0.04	4.95	0.04	68.13	0.33	3.41	0.11	0.93	0.03	1.57	0.03	0.46	0.02	100.57
C-3_(First traverse)	71	19.54	0.16	0.14	0.03	1.68	0.04	4.91	0.03	66.24	0.32	3.41	0.11	0.94	0.03	1.63	0.03	0.44	0.02	98.93
C-3_(First traverse)	72	19.47	0.17	0.10	0.02	2.07	0.04	4.79	0.03	67.87	0.33	3.52	0.11	1.06	0.03	1.71	0.03	0.44	0.02	101.03
C-3_(First traverse)	73	19.54	0.17	0.12	0.02	1.91	0.04	4.65	0.03	66.80	0.33	3.65	0.11	1.05	0.03	1.78	0.03	0.46	0.02	99.96
C-3_(First traverse)	74	19.83	0.17	0.12	0.03	1.99	0.04	4.56	0.03	67.20	0.33	3.76	0.11	1.03	0.03	1.94	0.04	0.53	0.02	100.96
C-3_(First traverse)	75	20.09	0.17	0.16	0.03	1.73	0.04	4.41	0.03	67.79	0.33	3.71	0.11	1.02	0.03	2.00	0.04	0.50	0.02	101.41
C-3_(First traverse)	76	19.41	0.16	0.11	0.02	1.64	0.03	4.49	0.03	68.28	0.33	3.48	0.11	0.93	0.03	1.92	0.04	0.45	0.02	100.70
C-3_(First traverse)	77	19.32	0.16	0.06	0.02	1.66	0.03	4.53	0.03	68.11	0.33	3.49	0.11	0.88	0.03	1.94	0.04	0.43	0.02	100.43
C-3_(First traverse)	78	19.43	0.17	0.18	0.02	1.79	0.04	4.52	0.03	68.28	0.33	3.14	0.10	0.80	0.03	1.98	0.04	0.37	0.02	100.48
C-3_(First traverse)	79	19.58	0.16	0.12	0.02	1.52	0.03	4.54	0.03	69.21	0.33	3.17	0.10	0.79	0.03	1.97	0.04	0.34	0.02	101.24
C-3_(First traverse)	80	19.27	0.16	0.11	0.03	1.98	0.04	4.48	0.03	68.01	0.33	3.00	0.10	0.72	0.02	2.03	0.04	0.34	0.02	99.94
C-3_(First traverse)	81	19.53	0.16	0.12	0.02	1.95	0.04	4.30	0.03	67.63	0.33	3.08	0.10	0.74	0.02	2.21	0.04	0.35	0.02	99.92
C-3_(First traverse)	82	19.13	0.16	0.16	0.02	2.03	0.04	4.28	0.03	68.76	0.33	3.10	0.10	0.71	0.02	2.16	0.04	0.34	0.02	100.67
C-3_(First traverse)	83	18.36	0.16	0.15	0.02	1.64	0.03	4.29	0.03	69.68	0.33	3.01	0.10	0.64	0.02	1.95	0.04	0.32	0.02	100.04
C-3_(First traverse)	84	16.34	0.15	0.09	0.02	1.40	0.03	4.36	0.03	72.18	0.34	2.67	0.10	0.54	0.02	1.72	0.03	0.30	0.02	99.60
C-3_(Second traverse)	1	13.42	0.14	0.12	0.02	4.88	0.06	5.93	0.04	70.51	0.33	2.55	0.09	0.49	0.02	1.84	0.03	0.21	0.02	99.95
C-3_(Second traverse)	2	13.38	0.14	0.07	0.02	3.12	0.05	5.94	0.04	71.67	0.34	2.63	0.10	0.49	0.02	1.94	0.04	0.23	0.02	99.47
C-3_(Second traverse)	3	13.90	0.14	0.12	0.02	2.30	0.04	5.59	0.04	71.14	0.33	2.71	0.10	0.49	0.02	1.97	0.04	0.25	0.02	98.47
C-3_(Second traverse)	4	13.76	0.14	0.10	0.02	2.16	0.04	5.45	0.04	71.32	0.34	2.53	0.09	0.50	0.02	1.95	0.04	0.24	0.02	98.01
C-3_(Second traverse)	5	13.70	0.14	0.12	0.02	2.90	0.04	5.77	0.04	72.19	0.34	2.60	0.10	0.48	0.02	2.01	0.04	0.20	0.02	99.97
C-3_(Second traverse)	6	13.84	0.14	0.07	0.02	1.77	0.04	5.03	0.04	72.74	0.34	2.75	0.10	0.50	0.02	2.09	0.04	0.24	0.02	99.03
C-3_(Second traverse)	7	13.49	0.14	0.11	0.03	2.22	0.04	5.44	0.04	72.55	0.34	2.78	0.10	0.50	0.02	1.97	0.04	0.25	0.02	99.31
C-3_(Second traverse)	8	12.90	0.14	0.12	0.02	3.11	0.05	5.84	0.04	72.40	0.34	2.99	0.10	0.53	0.02	2.11	0.04	0.22	0.02	100.21
C-3_(Second traverse)	9	13.36	0.14	0.08	0.02	2.51	0.04	5.58	0.04	72.13	0.34	2.72	0.10	0.55	0.02	2.14	0.04	0.22	0.02	99.29
C-3_(Second traverse)	10	13.57	0.14	0.09	0.03	2.60	0.04	5.61	0.04	72.21	0.34	2.91	0.10	0.60	0.02	2.33	0.04	0.22	0.02	100.14
C-3_(Second traverse)	11	12.57	0.14	0.13	0.03	3.00	0.05	5.66	0.04	70.83	0.33	3.66	0.11	0.66	0.02	2.68	0.04	0.23	0.02	99.41
C-3_(Second traverse)	12	11.49	0.13	0.16	0.03	2.06	0.04	5.02	0.04	72.39	0.34	4.19	0.12	0.72	0.02	2.74	0.04	0.25	0.02	99.02
C-3_(Second traverse)	13	9.19	0.12	0.17	0.03	1.84	0.04	4.82	0.03	74.04	0.34	4.49	0.12	0.73	0.02	2.43	0.04	0.23	0.02	97.94
C-3_(Second traverse)	14	11.70	0.13	0.19	0.03	2.00	0.04	5.36	0.04	74.17	0.34	3.37	0.11	0.52	0.02	1.79	0.03	0.25	0.02	99.35
C-3_(Second traverse)	15	14.76	0.14	0.06	0.02	1.65	0.03	5.40	0.04	73.78	0.34	2.66	0.10	0.51	0.02	1.50	0.03	0.30	0.02	100.62
C-3_(Second traverse)	16	14.71	0.15	0.10	0.02	1.57	0.03	5.24	0.04	71.81	0.34	2.53	0.10	0.50	0.02	1.41	0.03	0.30	0.02	98.17
C-3_(Second traverse)	17	15.12	0.15	0.10	0.02	1.82	0.04	5.29	0.04	72.66	0.34	2.53	0.09	0.51	0.02	1.35	0.03	0.30	0.02	99.69
C-3_(Second traverse)	18	15.15	0.15	0.11	0.02	1.59	0.03	5.18	0.04	72.31	0.34	2.81	0.10	0.58	0.02	1.34	0.03	0.30	0.02	99.37
C-3_(Second traverse)	19	15.93	0.15	0.11	0.02	1.60	0.03	5.08	0.04	70.60	0.33	2.86	0.10	0.53	0.02	1.54	0.03	0.36	0.02	98.61
C-3_(Second traverse)	20	15.98	0.15	0.11	0.02	1.76	0.04	4.86	0.03	71.88	0.34	2.98	0.10	0.56	0.02	1.56	0.03	0.33	0.02	100.03
C-3_(Second traverse)	21	15.73	0.15	0.17	0.03	1.51	0.03	4.79	0.03	71.47	0.34	2.92	0.10	0.58	0.02	1.72	0.03	0.30	0.02	99.19
C-3_(Second traverse)	22	16.11	0.15	0.10	0.03	0.97	0.03	4.64	0.03	72.14	0.34	3.19	0.11	0.58	0.02	1.60	0.03	0.32	0.02	99.65
C-3_(Second traverse)	23	15.98	0.15	0.12	0.02	1.50	0.03	4.69	0.03	71.55	0.34	2.98	0.10	0.59	0.02	1.72	0.03	0.31	0.02	99.44
C-3_(Second traverse)	24	15.94	0.15	0.11	0.02	1.17	0.03	4.55	0.03	71.26	0.33	3.17	0.10	0.59	0.02	1.70	0.03	0.33	0.02	98.81
C-3_(Second traverse)	25	16.11	0.15	0.13	0.03	1.26	0.03	4.54	0.03	70.99	0.33	3.28	0.11	0.58	0.02	1.67	0.03	0.34	0.02	98.89
C-3_(Second traverse)	26	16.02	0.15	0.11	0.02	1.40	0.03	4.46	0.03	71.95	0.34	3.14	0.10	0.61	0.02	1.69	0.03	0.32	0.02	99.70
C-3_(Second traverse)	27	16.16	0.15	0.11	0.02	1.23	0.03	4.32	0.03	71.97	0.34	3.28	0.11	0.67	0.02	1.74	0.03	0.32	0.02	99.80
C-3_(Second traverse)	28	15.96	0.15	0.12	0.02	1.33	0.03	4.39	0.03	71.21	0.33	3.28	0.11	0.62	0.02	1.64	0.03	0.32	0.02	98.87
C-3_(Second traverse)	29	16.26	0.15	0.11	0.03	1.33	0.03	4.30	0.03	72.16	0.34	3.09	0.10	0.65	0.02	1.60	0.03	0.34	0.02	99.85
C-3_(Second traverse)	30	15.94	0.15	0.15	0.02	1.33	0.03	4.28	0.03	72.26	0.34	3.16	0.11	0.65	0.02	1.56	0.03	0.33	0.02	99.66
C-3_(Second traverse)	31	15.74	0.15	0.16	0.03	1.34	0.03	4.26	0.03	72.97	0.34	3.03	0.10	0.66	0.02	1.48	0.03	0.30	0.02	99.94
C-3_(Second traverse)	32	15.36	0.15	0.09	0.03	1.20	0.03	4.18	0.03	72.96	0.34	2.99	0.10	0.65	0.02	1.43	0.03	0.32	0.02	99.18
D-2_	1	17.00	0.16	0.11	0.02	2.57	0.04	3.71	0.03	67.59	0.34	3.43	0.11	0.95	0.03	2.20	0.04	0.45	0.02	98.01
D-2_	2	17.70	0.16	0.09	0.03	1.25	0.03	3.72	0.03	67.47	0.34	3.46	0.11	0.98	0.03	2.23	0.04	0.47	0.02	97.38
D-2_	3	17.31	0.16	0.11	0.03	1.04	0.03	3.68	0.03	67.40	0.34	3.50	0.11	0.96	0.03	2.26	0.04	0.49	0.02	96.74
D-2_	4	17.69	0.16	0.13	0.03	1.44	0.03	3.73	0.03	67.44	0.34	3.50	0.11	0.95	0.03	2.27	0.04	0.46	0.02	97.62
D-2_	5	17.84	0.16	0.15	0.03	1.29	0.03	3.69	0.03	67.06	0.34	3.68	0.12	0.99	0.03	2.27	0.04	0.47	0.02	97.44
D-2_	6	17.75	0.16	0.15	0.03	1.14	0.03	3.62	0.03	67.28	0.34	3.65	0.11	1.01	0.03	2.32	0.04	0.47	0.02	97.39
D-2_	7	18.04	0.16	0.12	0.03	1.34	0.03	3.68	0.03	67.27	0.34	3.55	0.11	0.92	0.03	2.25	0.04	0.44	0.02	97.60
D-2_	8	17.53	0.16	0.09	0.03	1.39	0.03	3.72	0.03	67.65	0.34	3.46	0.11	0.96	0.03	2.26	0.04	0.47	0.02	97.54
D-2_	9	17.34	0.16	0.19	0.03	1.31	0.03	3.73	0.03	67.67	0.34	3.44	0.11	0.97	0.03	2.27	0.04	0.49	0.02	97.41
D-2_	10	17.17	0.16	0.09	0.03	1.09	0.03	3.69	0.03	67.20	0.34	3.56	0.11	0.95	0.03	2.18	0.04	0.49	0.02	96.43
D-2_	11	17.07	0.16	0.10	0.03	1.38	0.03	3.75	0.03	67.93	0.34	3.39	0.11	0.89	0.03	2.15	0.04	0.46	0.02	97.13
D-2_	12	16.91	0.16	0.16	0.03	1.23	0.03	3.73	0.03	68.06	0.34	3.40	0.11	0.94	0.03	2.09	0.04	0.48	0.02	97.01
D-2_	13	16.91	0.16	0.13	0.03	0.99	0.03	3.75	0.03	68.11	0.34	3.53	0.11	0.93	0.03	2.14	0.04	0.47	0.02	96.95
D-2_	14	16.71	0.16	0.12	0.03	1.23	0.03	3.73	0.03	68.39	0.34	3.36	0.11	0.97	0.03	2.08	0.04	0.47	0.02	97.06
D-2_	15	16.75	0.16	0.15	0.03	1.13	0.03	3.72	0.03	66.58	0.34	3.73	0.12	0.94	0.03	2.08	0.04	0.46	0.02	95.54
D-2_	16	17.05	0.16	0.11	0.03	1.13	0.03	3.74	0.03	68.92	0.34	3.42	0.12	0.92	0.03	2.03	0.04	0.42	0.02	97.74

EA2_7

D-2_	17	16.82	0.16	0.14	0.03	0.93	0.03	3.74	0.03	68.50	0.34	3.67	0.12	0.92	0.03	2.08	0.04	0.44	0.02	97.24
D-2_	18	16.73	0.16	0.18	0.03	1.39	0.03	3.74	0.03	68.75	0.34	3.36	0.11	0.91	0.03	2.02	0.04	0.46	0.02	97.54
D-2_	19	16.99	0.16	0.13	0.03	1.26	0.03	3.77	0.03	68.89	0.34	3.50	0.11	0.87	0.03	2.05	0.04	0.46	0.02	97.93
D-2_	20	16.60	0.16	0.16	0.03	1.06	0.03	3.76	0.03	68.11	0.35	3.45	0.11	0.90	0.03	2.06	0.04	0.46	0.02	96.55
D-2_	21	17.06	0.16	0.12	0.03	1.41	0.03	3.78	0.03	68.31	0.35	3.41	0.11	0.88	0.03	2.04	0.04	0.47	0.02	97.48
D-2_	22	17.06	0.16	0.16	0.03	1.25	0.03	3.71	0.03	68.30	0.35	3.49	0.11	0.91	0.03	2.03	0.04	0.46	0.02	97.37
D-2_	23	16.73	0.16	0.09	0.03	1.28	0.03	3.75	0.03	68.36	0.35	3.39	0.11	0.89	0.03	1.98	0.04	0.49	0.02	96.96
D-2_	24	16.85	0.16	0.13	0.03	1.26	0.03	3.72	0.03	68.70	0.35	3.54	0.12	0.92	0.03	2.08	0.04	0.46	0.02	97.66
D-2_	25	16.91	0.16	0.14	0.03	1.21	0.03	3.71	0.03	68.48	0.35	3.45	0.11	0.95	0.03	2.09	0.04	0.45	0.02	97.40
D-2_	26	16.89	0.16	0.13	0.03	1.16	0.03	3.75	0.03	68.24	0.35	3.55	0.12	0.98	0.03	2.04	0.04	0.45	0.02	97.18
D-2_	27	17.10	0.16	0.19	0.03	1.21	0.03	3.74	0.03	67.24	0.34	3.54	0.12	0.95	0.03	2.05	0.04	0.47	0.02	96.49
D-2_	28	16.85	0.16	0.14	0.03	1.13	0.03	3.78	0.03	68.63	0.35	3.47	0.12	0.93	0.03	1.91	0.04	0.46	0.02	97.30
D-2_	29	17.14	0.16	0.16	0.03	1.12	0.03	3.76	0.03	67.82	0.35	3.54	0.12	0.94	0.03	2.06	0.04	0.45	0.02	97.00
D-2_	30	17.11	0.16	0.18	0.03	1.17	0.03	3.76	0.03	68.71	0.35	3.62	0.12	0.93	0.03	2.02	0.04	0.44	0.02	97.94
D-2_	31	17.19	0.16	0.06	0.03	1.13	0.03	3.76	0.03	68.65	0.35	3.67	0.12	0.94	0.03	1.96	0.04	0.48	0.02	97.84
D-2_	32	17.11	0.16	0.10	0.03	1.20	0.03	3.80	0.03	68.38	0.35	3.64	0.12	0.92	0.03	2.02	0.04	0.43	0.02	97.61
D-2_	33	17.27	0.16	0.10	0.03	1.32	0.03	3.68	0.03	68.10	0.35	3.63	0.12	1.00	0.03	2.03	0.04	0.46	0.02	97.58
D-2_	34	17.01	0.16	0.13	0.03	1.48	0.04	3.79	0.03	67.63	0.35	3.59	0.12	0.93	0.03	2.14	0.04	0.46	0.02	97.16
D-2_	35	17.37	0.17	0.12	0.03	1.12	0.03	3.79	0.03	68.14	0.35	3.50	0.12	0.98	0.03	2.03	0.04	0.47	0.02	97.52
D-2_	36	17.62	0.17	0.13	0.03	1.26	0.03	3.75	0.03	66.99	0.35	3.84	0.12	0.96	0.03	2.01	0.04	0.48	0.02	97.05
D-2_	37	17.67	0.17	0.18	0.03	1.35	0.03	3.81	0.03	67.30	0.35	3.68	0.12	0.94	0.03	1.99	0.04	0.48	0.02	97.40
D-2_	38	17.63	0.16	0.14	0.03	1.39	0.03	3.85	0.03	67.75	0.34	3.68	0.12	0.94	0.03	2.01	0.04	0.45	0.02	97.84
D-2_	39	17.68	0.16	0.13	0.02	1.39	0.03	3.81	0.03	66.99	0.33	3.77	0.12	0.96	0.03	1.98	0.04	0.46	0.02	97.17
D-2_	40	17.70	0.16	0.10	0.03	1.32	0.03	3.84	0.03	67.23	0.34	3.73	0.12	1.00	0.03	2.01	0.04	0.48	0.02	97.41
D-2_	41	17.80	0.16	0.14	0.03	1.50	0.03	3.82	0.03	66.45	0.33	3.88	0.12	0.97	0.03	2.04	0.04	0.48	0.02	97.08
D-2_	42	17.68	0.16	0.13	0.03	1.09	0.03	3.85	0.03	66.46	0.33	3.56	0.11	0.92	0.03	1.92	0.04	0.49	0.02	96.09
D-2_	43	17.54	0.16	0.14	0.03	1.20	0.03	3.84	0.03	67.39	0.34	3.57	0.11	0.94	0.03	1.91	0.04	0.48	0.02	97.01
D-2_	44	17.27	0.16	0.14	0.03	1.36	0.03	3.93	0.03	67.27	0.34	3.61	0.11	0.91	0.03	1.87	0.04	0.49	0.02	96.85
D-2_	45	17.02	0.16	0.12	0.03	1.01	0.03	3.91	0.03	67.76	0.34	3.56	0.11	0.91	0.03	1.87	0.04	0.47	0.02	96.63
D-2_	46	16.98	0.16	0.18	0.03	1.22	0.03	3.97	0.03	68.03	0.34	3.62	0.11	0.87	0.03	1.73	0.03	0.44	0.02	97.03
D-2_	47	16.86	0.16	0.12	0.03	1.52	0.04	4.03	0.03	68.97	0.34	3.65	0.12	0.88	0.03	1.79	0.04	0.41	0.02	98.23
D-2_	48	16.92	0.16	0.11	0.02	1.03	0.03	3.96	0.03	68.75	0.34	3.64	0.12	0.88	0.03	1.73	0.03	0.46	0.02	97.48
D-2_	49	16.90	0.16	0.14	0.03	1.27	0.03	3.98	0.03	68.11	0.34	3.42	0.11	0.87	0.03	1.70	0.03	0.44	0.02	96.84
D-2_	50	16.70	0.16	0.11	0.03	1.56	0.04	4.06	0.03	68.07	0.34	3.42	0.11	0.83	0.03	1.68	0.03	0.47	0.02	96.89
D-2_	51	16.82	0.16	0.12	0.03	1.18	0.03	4.06	0.03	68.89	0.34	3.61	0.12	0.89	0.03	1.73	0.03	0.45	0.02	97.75
D-2_	52	16.92	0.16	0.14	0.03	1.27	0.03	4.19	0.03	69.03	0.35	3.52	0.11	0.86	0.03	1.66	0.03	0.47	0.02	98.06
D-2_	53	16.30	0.16	0.11	0.03	1.52	0.04	4.19	0.03	68.71	0.34	3.45	0.11	0.85	0.03	1.64	0.03	0.44	0.02	97.21
D-2_	54	16.50	0.16	0.17	0.03	1.26	0.03	4.21	0.03	69.40	0.35	3.46	0.12	0.83	0.03	1.58	0.03	0.44	0.02	97.84
D-2_	55	16.42	0.16	0.14	0.03	1.01	0.03	4.17	0.03	69.27	0.35	3.27	0.11	0.75	0.03	1.71	0.04	0.47	0.02	97.21
D-2_	56	16.10	0.16	0.11	0.03	1.20	0.03	4.22	0.03	68.81	0.34	3.35	0.11	0.83	0.03	1.55	0.03	0.41	0.02	96.58
D-2_	57	15.80	0.16	0.11	0.03	1.39	0.03	4.33	0.03	69.63	0.35	3.32	0.11	0.79	0.03	1.58	0.03	0.39	0.02	97.35
D-2_	58	15.39	0.15	0.15	0.03	0.86	0.03	4.35	0.03	70.50	0.35	3.17	0.11	0.73	0.03	1.44	0.03	0.42	0.02	97.01
D-2_	59	15.01	0.15	0.09	0.03	1.40	0.03	4.49	0.04	69.95	0.35	3.14	0.11	0.73	0.03	1.55	0.03	0.39	0.02	96.75
D-2_	60	15.02	0.15	0.12	0.03	1.00	0.03	4.45	0.04	70.41	0.35	3.40	0.11	0.73	0.03	1.62	0.03	0.40	0.02	97.16
D-2_	61	15.00	0.15	0.15	0.03	1.55	0.04	4.52	0.04	69.30	0.35	3.49	0.12	0.78	0.03	1.90	0.04	0.40	0.02	97.09
D-2_	62	14.18	0.15	0.18	0.03	1.32	0.03	4.43	0.03	70.46	0.35	3.83	0.12	0.82	0.03	2.08	0.04	0.35	0.02	97.66
D-2_	63	13.08	0.14	0.15	0.03	1.29	0.03	4.27	0.03	70.44	0.35	4.10	0.12	0.79	0.03	2.21	0.04	0.30	0.02	96.64
D-2_	64	12.57	0.14	0.09	0.03	1.05	0.03	4.25	0.03	71.14	0.35	4.24	0.13	0.73	0.03	2.19	0.04	0.30	0.02	96.56
D-2_	65	13.02	0.14	0.09	0.03	1.47	0.04	4.34	0.03	70.54	0.35	3.72	0.12	0.70	0.03	2.21	0.04	0.29	0.02	96.38
D-2_	66	14.10	0.15	0.08	0.02	1.43	0.03	4.36	0.03	70.40	0.34	3.70	0.12	0.64	0.02	2.19	0.04	0.30	0.02	97.19
D-2_	67	14.03	0.15	0.17	0.03	1.06	0.03	4.43	0.03	70.42	0.35	3.08	0.11	0.55	0.02	2.09	0.04	0.33	0.02	96.16
D-2_	68	14.02	0.15	0.12	0.03	1.49	0.04	4.49	0.04	70.95	0.35	3.00	0.11	0.45	0.02	1.82	0.04	0.33	0.02	96.67
D-2_	69	14.94	0.15	0.11	0.03	1.21	0.03	4.35	0.03	71.16	0.35	3.27	0.11	0.51	0.02	1.74	0.04	0.31	0.02	97.59
D-2_	70	14.72	0.15	0.16	0.03	1.25	0.03	4.33	0.03	70.70	0.35	3.13	0.11	0.54	0.02	1.79	0.04	0.29	0.02	96.91
D-2_	71	14.81	0.15	0.12	0.02	1.12	0.03	4.26	0.03	70.24	0.34	3.27	0.11	0.56	0.02	1.74	0.04	0.32	0.02	96.43
D-2_	72	14.70	0.15	0.09	0.03	1.19	0.03	4.30	0.03	71.09	0.35	3.34	0.11	0.55	0.02	1.76	0.04	0.32	0.02	97.34
D-2_	73	14.61	0.15	0.12	0.03	0.92	0.03	4.16	0.03	71.47	0.35	3.19	0.11	0.55	0.02	1.70	0.04	0.29	0.02	97.01
D-2_	74	14.44	0.15	0.06	0.03	1.37	0.03	4.18	0.03	71.90	0.35	3.21	0.11	0.58	0.02	1.73	0.04	0.31	0.02	97.78
D-2_	75	14.41	0.15	0.13	0.03	1.16	0.03	4.12	0.03	70.99	0.35	3.08	0.11	0.59	0.02	1.76	0.04	0.34	0.02	96.58
D-2_	76	14.21	0.15	0.14	0.03	1.21	0.03	4.05	0.03	71.18	0.35	3.35	0.11	0.58	0.02	1.77	0.04	0.30	0.02	96.79
D-2_	77	14.22	0.15	0.15	0.03	1.16	0.03	4.03	0.03	71.23	0.35	3.20	0.11	0.58	0.02	1.83	0.04	0.34	0.02	96.74
D-2_	78	14.09	0.15	0.13	0.03	1.15	0.03	4.00	0.03	71.38	0.34	3.29	0.11	0.63	0.02	1.82	0.04	0.32	0.02	96.80
D-2_	79	14.12	0.15	0.14	0.03	1.26	0.03	4.02	0.03	69.21	0.34	3.18	0.11	0.62	0.02	1.82	0.04	0.32	0.02	94.70
D-2_	80	14.19	0.15	0.15	0.03	1.62	0.04	4.01	0.03	70.86	0.35	3.31	0.11	0.64	0.02	1.84	0.04	0.33	0.02	96.95
D-2_	81	14.12	0.15	0.15	0.03	1.08	0.03	3.95	0.03	69.18	0.35	3.30	0.11	0.63	0.02	1.83	0.04	0.33	0.02	94.56
D-2_	82	13.80	0.15	0.11	0.03	1.40	0.03	4.00	0.03	71.39	0.36	3.23	0.11	0.62	0.02	1.86	0.04	0.28	0.02	96.69
D-2_	83	13.93	0.15	0.12	0.03	1.31	0.03	3.94	0.03	71.44	0.36	3.04	0.11	0.59	0.02	1.82	0.04	0.36	0.02	96.55
D-2_	84	13.68	0.15	0.12	0.03	1.19	0.03	3.91	0.03	71.62	0.36	2.91	0.11	0.55	0.02	1.78	0.04	0.32	0.02	96.07
D-2_	85	13.36	0.14	0.09	0.03	1.19	0.03	3.90	0.03	72.04	0.35	3.06	0.11	0.56	0.02	1.80	0.03	0.31	0.02	96.31
D-2_	86	13.66	0.14	0.13	0.02	1.28	0.03	3.94	0.03	70.77	0.34	3.08	0.11	0.54	0.02	1.80	0.04	0.29	0.02	95.49
D-2_	87	13.57	0.14	0.14	0.03	1.45	0.03	3.94	0.03	71.08	0.35	3.11	0.11	0.58	0.02	1.88	0.04	0.29	0.02	96.04
D-2_	88	13.78	0.15	0.12	0.03	1.07	0.03	3.92	0.03	71.28	0.35	3.23	0.11	0.59	0.02	1.82	0.04	0.33	0.02	96.14
D-2_	89	14.00	0.15	0.15	0.03	1.35	0.03	3.97	0.03	71.69	0.35	3.37	0.11	0.64	0.02	1.88	0.04	0.35	0.02	97.40
D-2_	90	13.87	0.15	0.08	0.03	1.44	0.03	3.83	0.03	71.74	0.35	3.05	0.11	0.56	0.02	1.86	0.04	0.26	0.02	96.69
D-2_	91	13.89	0.15	0.13	0.03	1.07	0.03	3.92	0.03	68.88	0.34	3.05	0.11	0.59	0.02	1.88	0.04	0.29	0.02	93.70
D-2_	92	13.58	0.15	0.03	0.03	1.50	0.03	3.90	0.03	71.70	0.35	3.43	0.11	0.59	0.02	1.87	0.04	0.31	0.02	96.91
D-2_	93	13.94	0.15	0.19	0.03	1.36	0.03	3.89	0.03	71.33	0.35	3.22	0.11	0.62	0.02	1.88	0.04	0.30	0.02	96.73
D-2_	94	13.69	0.15	0.12	0.03	1.45	0.03	3.92	0.03	71.84	0.35	3.30	0.11	0.60	0.02	1.91	0.04	0.30	0.02	97.13
D-2_	95	14.06	0.15	0.07	0.03	1.19	0.03	3.95	0.03	71.83	0.35	3.63	0.12	0.59	0.02	1.98	0.04	0.29	0.02	97.60
D-2_	96	13.75	0.15	0.10	0.03	1.23	0.03	3.95	0.03	70.92	0.35	3.57	0.11	0.64	0.02	1.90	0.04	0.28	0.02	96.34
D-2_	97	13.50	0.14	0.15	0.03	1.45	0.03	3.92	0.03	71.88	0.35	3.51	0.11	0.60	0.02	1.89	0.04	0.30	0.02	97.20
D-2_	98	13.56	0.15	0.08	0.03	1.08	0.03	3.97	0.03	72.32	0.35	3.28	0.11	0.55	0.02	1.80	0.04	0.31	0.02	96.95
D-2_	99	13.29	0.14	0.13	0.03	1.25	0.03	4.01	0.03	72.55	0.35	3.19	0.11	0.56	0.02	1.85	0.04	0.27	0.02	97.10
D-2_	100	15.76	0.15	0.16	0.03	2.22	0.04	3.85	0.03	69.39	0.35	3.63	0.12	0.78	0.03	1.29	0.03	0.37	0.02	97.45
D-2_	101	15.65	0.15	0.18	0.03	0.93	0.03	3.82	0.03	70.44	0.35	3.40	0.11	0.72	0.03	1.31	0.03	0.36	0.02	96.81
D-2_	102	15.92	0.16	0.14	0.03	0.98	0.03	3.81	0.03	70.58	0.35	3.53	0.11	0.69	0.02	1.28	0.03	0.38	0.02	97.31
D-2_	103	16.00	0.16	0.14	0.03	0.71	0.03	3.91	0.03	70.43	0.35	3.56	0.11	0.69	0.03	1.24	0.03	0.39	0.02	97.07
D-2_	104	15.74	0.15	0.13	0.03	0.88	0.03	3.84	0.03	69.78	0.34	3.38	0.11	0.74	0.03	1.20	0.03	0.32	0.02	96.01
D-2_	105	15.64	0.15	0.09	0.03	0.89	0.03	3.81	0.03	69.89	0.35	3.53	0.11	0.70	0.03	1.25	0.03	0.35	0.02	96.15
D-2_	106	15.66	0.16	0.11	0.03	0.98	0.03	3.90	0.03	70.40	0.35	3.42	0.11	0.70	0.03	1.21	0.03	0.35	0.02	96.74
D-2_	107	15.91	0.16	0.12	0.03	0.77	0.03	3.87	0.03	70.56	0.35	3.41	0.11	0.74	0.03	1.30	0.03	0.34	0.02	97.02
D-2_	108	15.61	0.16	0.15	0.03	0.99	0.03	3.85	0.03	70.05	0.35	3.25	0.11	0.69	0.03	1.33	0.03	0.32	0.02	96.23
D-2_	109	15.94	0.16	0.12	0.03	0.70	0.03	3.81	0.03	68.33	0.35	3.39	0.12	0.67	0.02	1.28	0.03	0.37	0.02	94.61
D-2_	110	16.01	0.16	0.14	0.03	0.92	0.03	3.88	0.03	69.90	0.36	3.39	0.12	0.71	0.03	1.34	0.03	0.37	0.02	96.66
D-2_	111	15.96	0.16	0.15	0.03	1.05	0.03	3.89	0.03	69.49	0.35	3.38	0.11	0.72	0.03	1.37	0.03	0.40	0.02	96.41
D-2_	112	16.24	0.16	0.17	0.03	0.83	0.03	3.90	0.03	69.16	0.35	3.26	0.11	0.71	0.03	1.41	0.03	0.41	0.02	96.09
D-2_	113	16.63	0.16	0.12	0.03	1.09	0.03	3.97	0.03	69.65	0.36	3.46	0.12	0.67	0.03	1.48	0.03	0.38	0.02	97.46
D-2_	114	16.50	0.16	0.13	0.03	0.80	0.03	3.89	0.03	69.13	0.35	3.34	0.11	0.69	0.03	1.55	0.03	0.40	0.02	96.43
D-2_	115	16.54	0.16	0.10	0.03	1.10	0.03	3.94	0.03	68.76	0.35	3.15	0.11	0.68	0.03	1.55	0.03	0.37	0.02	96.19
D-2_	116	16.29	0.16	0.18	0.03	1.25	0.03	4.01	0.03	69.57	0.35	3.14	0.11	0.71	0.03	1.61	0.04	0.37	0.02	97.13
D-2_	117	16.19	0.16	0.09	0.03	0.96	0.03	3.97	0.03	69.81	0.36	3.08	0.11	0.65	0.03	1.60	0.03	0.35	0.02	96.70
D-2_	118	15.68	0.16	0.15	0.03	1.03	0.03	3.98	0.03	71.14	0.36	3.06	0.11	0.64	0.02	1.54	0.03	0.33	0.02	97.55
D-2_	119	15.66	0.16	0.15	0.03	0.80	0.03	3.94	0.03	72.09	0.36	2.95	0.11	0.61	0.02	1.58	0.04	0.32	0.02	98.11
D-2_	120	14.95	0.16	0.14	0.03	1.03	0.03	4.06	0.03	71.84	0.36	2.96	0.11	0.58	0.02	1.54	0.03	0.30	0.02	97.39
D-2_	121	14.78	0.16	0.13	0.03	0.78	0.03	3.97	0.03	71.79	0.36	2.87	0.11	0.55	0.02	1.56	0.03	0.29	0.02	96.72
D-2_	122	14.52	0.15	0.13	0.03	0.98	0.03	4.00	0.03	73.07	0.35	2.93	0.10	0.56	0.02	1.62	0.03	0.24	0.02	98.05
D-2_	123	14.47	0.15	0.06	0.02	1.00	0.03	4.10	0.03	72.08	0.35	2.70	0.10	0.57	0.02	1.61	0.03	0.23	0.02	96.82
D-2_	124	13.83	0.15	0.06	0.03	1.05	0.03	4.05	0.03	72.26	0.35	2.57	0.10	0.59	0.02	1.84	0.04	0.24	0.02	96.49
D-2_	125	13.71	0.15	0.07	0.03	0.88	0.03	3.92	0.03	71.91	0.35	3.00	0.11	0.58	0.02	1.78	0.04	0.25	0.02	96.10
D-2_	126	13.69	0.15	0.07	0.03	1.17	0.03	4.02	0.03	71.74	0.36	2.94	0.11	0.61	0.02	1.86	0.04	0.28	0.02	96.38
D-2_	127	13.56	0.15	0.13	0.03	1.29	0.03	4.12	0.03	71.50	0.36	2.83	0.11	0.68	0.03	2.04	0.04	0.23	0.02	96.39
D-2_	128	13.92	0.15	0.11	0.03	1.01	0.03	4.06	0.03	71.69	0.36	3.29	0.11	0.66	0.03	2.14	0.04	0.28	0.02	97.15
D-2_	129	13.92	0.14	0.10	0.03	1.25	0.03	4.15	0.03	71.08	0.34	3.18	0.11	0.71	0.02	2.19	0.04	0.28	0.02	96.86
D-2_	130	13.20	0.14	0.11	0.03	1.20	0.03	4.22	0.03	72.31	0.35	2.95	0.11	0.67	0.02	2.03	0.04	0.28	0.02	96.97
D-2_	131	13.77	0.14	0.15	0.03	1.38	0.03	4.38	0.03	71.54	0.34	2.76	0.10	0.63	0.02	1.98	0.04	0.29	0.02	96.88
D-2_	132	14.05	0.15	0.16	0.02	1.32	0.03	4.49	0.03	70.39	0.34	2.57	0.10	0.60	0.02	2.29	0.04	0.28	0.02	96.14
D-2_	133	13.71	0.15	0.15	0.03	0.92	0.03	4.30	0.03	71.76	0.35	2.71	0.10	0.61	0.02	2.28	0.04	0.27	0.02	96.70
D-2_	134	12.53	0.14	0.12	0.03	1.13	0.03	4.27	0.03	70.28	0.34	3.40	0.11	0.64	0.02	2.24	0.04	0.26	0.02	94.86
D-2_	135	12.43	0.14	0.11	0.03	0.89	0.03	4.31	0.03	71.80	0.35	3.50	0.11	0.69	0.03	2.47	0.04	0.23	0.02	96.44
D-2_	136	14.15	0.15	0.18	0.03	1.56	0.03	4.62	0.03	68.68	0.34	3.57	0.11	0.78	0.03	2.58	0.04	0.32	0.02	96.44
D-2_	137	14.19	0.14	0.11	0.02	1.62	0.03	4.75	0.03	69.92	0.34	3.37	0.11	0.68	0.02	2.29	0.04	0.34	0.02	97.27
D-2_	138	15.10	0.15	0.10	0.03	0.95	0.03	4.56	0.03	70.80	0.34	2.70	0.10	0.58	0.02	1.72	0.03	0.31	0.02	96.83

EA2_8

*D-2_*	139	14.83	0.15	0.16	0.02	1.15	0.03	4.57	0.03	70.99	0.34	2.92	0.10	0.56	0.02	1.69	0.03	0.32	0.02	97.19
*D-2_*	140	14.81	0.15	0.13	0.02	1.17	0.03	4.57	0.03	70.32	0.34	3.17	0.11	0.62	0.02	1.66	0.03	0.34	0.02	96.79
*D-2_*	141	14.89	0.15	0.10	0.03	1.10	0.03	4.48	0.04	70.58	0.35	3.03	0.11	0.66	0.02	1.68	0.04	0.33	0.02	96.85
*D-2_*	142	15.36	0.14	0.07	0.02	0.78	0.02	4.27	0.03	70.52	0.32	2.77	0.09	0.61	0.02	1.67	0.03	0.34	0.02	96.38
*D-2_*	143	15.67	0.15	0.11	0.03	1.07	0.03	4.31	0.03	71.50	0.33	2.99	0.10	0.67	0.02	1.81	0.03	0.37	0.02	98.50
*D-2_*	144	15.23	0.15	0.13	0.03	1.07	0.03	4.26	0.03	70.12	0.34	3.09	0.10	0.63	0.02	1.79	0.03	0.33	0.02	96.65
*D-2_*	145	15.53	0.15	0.16	0.03	0.93	0.03	4.14	0.03	69.88	0.34	2.94	0.10	0.60	0.02	1.81	0.03	0.34	0.02	96.32
*D-2_*	146	15.04	0.15	0.08	0.02	1.06	0.03	4.21	0.03	70.48	0.34	2.86	0.10	0.62	0.02	1.90	0.04	0.34	0.02	96.58
*D-2_*	147	15.11	0.15	0.11	0.03	0.86	0.03	4.14	0.03	71.41	0.34	2.96	0.10	0.63	0.02	1.70	0.03	0.31	0.02	97.23
*D-2_*	148	14.56	0.14	0.11	0.02	1.03	0.03	4.16	0.03	71.01	0.33	2.82	0.10	0.56	0.02	1.76	0.03	0.33	0.02	96.34
*D-2_*	149	15.21	0.15	0.12	0.02	0.82	0.03	4.07	0.03	70.89	0.33	2.71	0.10	0.58	0.02	1.82	0.03	0.30	0.02	96.52
*D-2_*	150	15.39	0.15	0.09	0.02	0.93	0.03	3.95	0.03	70.51	0.33	2.95	0.10	0.58	0.02	1.84	0.03	0.32	0.02	96.55
*D-2_*	151	15.34	0.15	0.10	0.02	1.26	0.03	4.14	0.03	70.52	0.33	2.93	0.10	0.63	0.02	1.87	0.03	0.31	0.02	97.09
*D-2_*	152	15.91	0.15	0.10	0.02	0.99	0.03	4.00	0.03	69.18	0.33	2.93	0.10	0.63	0.02	2.02	0.04	0.32	0.02	96.08
*D-2_*	153	16.12	0.15	0.11	0.02	0.97	0.03	4.00	0.03	68.81	0.33	3.17	0.10	0.62	0.02	2.00	0.04	0.32	0.02	96.12
*D-2_*	154	16.21	0.15	0.12	0.02	1.07	0.03	3.95	0.03	68.92	0.33	3.09	0.10	0.64	0.02	2.06	0.04	0.35	0.02	96.41
*D-2_*	155	16.42	0.16	0.14	0.03	0.92	0.03	3.87	0.03	69.66	0.35	3.15	0.11	0.64	0.02	2.24	0.04	0.36	0.02	97.41
*D-2_*	156	15.87	0.15	0.11	0.03	0.98	0.03	3.99	0.03	69.91	0.34	3.14	0.11	0.65	0.02	1.95	0.04	0.35	0.02	96.96
*D-2_*	157	15.75	0.15	0.11	0.02	1.00	0.03	3.94	0.03	69.66	0.33	3.03	0.10	0.65	0.02	2.01	0.04	0.39	0.02	96.54
*D-2_*	158	15.66	0.15	0.12	0.02	1.10	0.03	3.92	0.03	70.23	0.34	3.13	0.10	0.61	0.02	1.93	0.04	0.39	0.02	97.09
*D-2_*	159	15.21	0.15	0.07	0.02	1.08	0.03	3.96	0.03	70.53	0.34	2.91	0.10	0.64	0.02	1.95	0.04	0.33	0.02	96.67
*D-2_*	160	15.21	0.15	0.07	0.03	1.04	0.03	4.00	0.03	70.54	0.34	2.96	0.10	0.61	0.02	1.95	0.04	0.32	0.02	96.70
*D-2_*	161	15.39	0.15	0.11	0.03	0.78	0.03	3.85	0.03	71.14	0.33	3.00	0.10	0.61	0.02	1.94	0.04	0.31	0.02	97.14
*D-2_*	162	14.90	0.15	0.12	0.02	1.12	0.03	4.02	0.03	70.70	0.33	3.08	0.10	0.60	0.02	1.86	0.04	0.33	0.02	96.73
*E-1_*	1	14.23	0.07	0.10	0.02	2.66	0.04	4.86	0.04	71.53	0.34	2.31	0.09	0.54	0.02	1.11	0.02	0.30	0.02	97.64
*E-1_*	2	14.09	0.07	0.09	0.01	1.71	0.03	4.95	0.03	72.09	0.35	2.28	0.08	0.56	0.01	1.15	0.02	0.31	0.01	97.22
*E-1_*	3	13.91	0.07	0.05	0.00	1.63	0.03	5.02	0.04	71.95	0.35	2.39	0.09	0.53	0.01	1.12	0.02	0.33	0.01	96.92
*E-1_*	4	14.47	0.07	0.10	0.01	1.88	0.03	5.11	0.04	71.38	0.34	2.29	0.08	0.53	0.01	1.13	0.02	0.32	0.01	97.21
*E-1_*	5	14.42	0.07	0.08	0.01	2.08	0.03	5.18	0.04	71.83	0.34	2.21	0.08	0.51	0.01	1.12	0.02	0.32	0.01	97.75
*E-1_*	6	14.65	0.07	0.10	0.01	2.04	0.03	5.26	0.04	71.34	0.34	2.28	0.08	0.53	0.01	1.16	0.02	0.33	0.01	97.69
*E-1_*	7	14.37	0.07	0.07	0.01	2.00	0.03	5.31	0.04	71.82	0.34	2.33	0.08	0.55	0.01	1.18	0.02	0.33	0.01	97.95
*E-1_*	8	14.39	0.07	0.08	0.01	1.89	0.03	5.35	0.04	71.19	0.34	2.35	0.08	0.56	0.01	1.18	0.02	0.33	0.01	97.32
*E-1_*	9	14.12	0.07	0.07	0.01	2.27	0.04	5.45	0.04	71.10	0.34	2.28	0.08	0.53	0.01	1.17	0.02	0.30	0.01	97.29
*E-1_*	10	14.12	0.07	0.08	0.01	2.46	0.04	5.52	0.04	71.86	0.34	2.24	0.08	0.55	0.01	1.15	0.02	0.34	0.01	98.32
*E-1_*	11	14.05	0.07	0.05	0.00	2.73	0.04	5.63	0.04	70.73	0.34	2.15	0.08	0.54	0.01	1.19	0.02	0.32	0.01	97.40
*E-1_*	12	13.78	0.07	0.08	0.01	2.42	0.04	5.66	0.04	70.70	0.34	2.31	0.08	0.53	0.01	1.18	0.02	0.30	0.01	96.96
*E-1_*	13	13.42	0.07	0.11	0.01	2.47	0.04	5.68	0.04	70.97	0.34	2.39	0.09	0.55	0.01	1.19	0.02	0.31	0.01	97.08
*E-1_*	14	13.50	0.07	0.06	0.00	2.29	0.04	5.71	0.04	71.66	0.34	2.43	0.09	0.54	0.01	1.22	0.02	0.30	0.01	97.70
*E-1_*	15	13.45	0.07	0.06	0.00	2.93	0.04	5.76	0.04	70.68	0.34	2.55	0.09	0.59	0.01	1.32	0.02	0.29	0.01	97.63
*E-1_*	16	13.45	0.07	0.09	0.01	3.21	0.04	5.72	0.04	69.43	0.34	2.41	0.09	0.60	0.01	1.54	0.02	0.31	0.01	96.75
*E-1_*	17	13.08	0.07	0.12	0.01	3.37	0.04	5.78	0.04	68.97	0.34	2.91	0.09	0.71	0.01	1.88	0.02	0.30	0.01	97.12
*E-1_*	18	12.12	0.07	0.12	0.01	3.61	0.05	5.57	0.04	69.06	0.34	3.41	0.10	0.77	0.02	2.29	0.02	0.26	0.01	97.22
*E-1_*	19	10.61	0.06	0.18	0.01	2.51	0.04	5.31	0.04	70.75	0.34	3.85	0.11	0.79	0.02	2.37	0.02	0.28	0.01	96.65
*E-1_*	20	9.00	0.06	0.13	0.01	2.30	0.04	5.10	0.04	74.77	0.34	3.16	0.10	0.56	0.01	1.68	0.02	0.21	0.01	96.91
*E-1_*	21	9.40	0.06	0.09	0.01	2.19	0.03	5.17	0.04	76.39	0.35	2.28	0.08	0.31	0.01	1.12	0.02	0.22	0.01	97.16
*E-1_*	22	10.06	0.06	0.08	0.01	2.06	0.03	5.12	0.04	75.48	0.35	2.37	0.09	0.28	0.01	0.92	0.01	0.23	0.01	96.60
*E-1_*	23	11.17	0.06	0.09	0.01	2.03	0.03	5.20	0.04	75.39	0.35	2.34	0.08	0.26	0.01	0.86	0.01	0.23	0.01	97.57
*E-1_*	24	11.37	0.06	0.11	0.01	2.00	0.03	5.18	0.04	74.35	0.35	2.31	0.08	0.31	0.01	0.81	0.01	0.20	0.01	96.64
*E-1_*	25	11.92	0.06	0.11	0.01	1.79	0.03	5.06	0.04	74.35	0.35	2.72	0.09	0.33	0.01	0.81	0.01	0.23	0.01	97.32
*E-1_*	26	11.91	0.06	0.08	0.01	1.72	0.03	5.03	0.04	74.49	0.35	2.59	0.09	0.36	0.01	0.81	0.01	0.26	0.01	97.25
*E-1_*	27	12.04	0.07	0.04	0.00	1.51	0.03	4.92	0.03	74.39	0.35	2.51	0.09	0.42	0.01	0.79	0.01	0.28	0.01	96.90
*E-1_*	28	12.16	0.07	0.10	0.01	1.58	0.03	4.85	0.03	74.05	0.35	2.69	0.09	0.44	0.01	0.81	0.01	0.29	0.01	96.97
*E-1_*	29	12.76	0.07	0.11	0.01	1.55	0.03	4.75	0.03	73.38	0.34	2.90	0.09	0.51	0.01	0.87	0.01	0.31	0.01	97.14
*E-1_*	30	13.54	0.07	0.08	0.01	1.66	0.03	4.75	0.03	72.42	0.35	2.97	0.10	0.54	0.01	0.94	0.01	0.34	0.01	97.25
*E-1_*	31	13.98	0.07	0.09	0.01	1.55	0.03	4.66	0.03	72.95	0.34	2.83	0.09	0.58	0.01	1.00	0.02	0.40	0.01	98.03
*E-1_*	32	13.66	0.07	0.12	0.01	1.71	0.03	4.67	0.03	71.76	0.34	2.77	0.09	0.56	0.01	1.00	0.02	0.37	0.01	96.61
*E-1_*	33	13.89	0.07	0.12	0.01	1.52	0.03	4.60	0.03	71.78	0.34	2.70	0.09	0.62	0.01	0.98	0.01	0.33	0.01	96.54
*E-1_*	34	14.01	0.07	0.06	0.00	1.51	0.03	4.55	0.03	71.74	0.34	2.67	0.09	0.58	0.01	1.00	0.02	0.34	0.01	96.46
*E-1_*	35	14.11	0.07	0.11	0.01	1.32	0.03	4.51	0.03	72.34	0.35	2.77	0.09	0.58	0.01	1.04	0.02	0.34	0.01	97.12
*E-1_*	36	14.27	0.07	0.10	0.01	1.65	0.03	4.54	0.03	72.80	0.35	3.00	0.10	0.63	0.01	1.04	0.02	0.33	0.01	98.35
*E-1_*	37	14.24	0.07	0.08	0.01	1.78	0.03	4.42	0.03	72.29	0.35	2.63	0.09	0.66	0.01	1.08	0.02	0.33	0.01	97.51
*E-2_*	1	14.54	0.07	0.10	0.01	2.56	0.04	4.10	0.03	72.80	0.35	2.61	0.09	0.57	0.01	1.34	0.02	0.31	0.01	98.92
*E-2_*	2	14.55	0.07	0.06	0.00	1.70	0.03	4.12	0.03	72.19	0.35	2.75	0.09	0.56	0.01	1.30	0.02	0.32	0.01	97.55
*E-2_*	3	14.46	0.07	0.08	0.01	2.06	0.03	4.29	0.03	73.50	0.35	2.65	0.09	0.53	0.01	1.30	0.02	0.29	0.01	99.17
*E-2_*	4	14.29	0.07	0.07	0.00	1.80	0.03	4.34	0.03	73.07	0.34	2.63	0.09	0.53	0.01	1.25	0.02	0.28	0.01	98.26
*E-2_*	5	13.99	0.07	0.06	0.00	1.96	0.03	4.42	0.03	72.96	0.34	2.68	0.09	0.52	0.01	1.34	0.02	0.30	0.01	98.24
*E-2_*	6	13.82	0.07	0.07	0.01	1.93	0.03	4.50	0.03	72.49	0.35	2.54	0.09	0.50	0.01	1.42	0.02	0.30	0.01	97.57
*E-2_*	7	13.51	0.07	0.08	0.01	1.90	0.03	4.49	0.03	73.15	0.34	2.55	0.09	0.57	0.01	1.42	0.02	0.29	0.01	97.97
*E-2_*	8	12.59	0.07	0.06	0.00	2.05	0.03	4.47	0.03	74.11	0.35	2.73	0.09	0.55	0.01	1.43	0.02	0.28	0.01	98.27
*E-2_*	9	12.53	0.07	0.08	0.01	1.92	0.03	4.55	0.03	73.50	0.35	2.88	0.09	0.61	0.01	1.50	0.02	0.30	0.01	97.86
*E-2_*	10	13.19	0.07	0.08	0.01	2.27	0.04	4.68	0.03	71.81	0.34	3.00	0.10	0.63	0.01	1.58	0.02	0.29	0.01	97.53
*E-2_*	11	13.82	0.07	0.10	0.01	2.23	0.04	4.77	0.03	71.72	0.34	2.60	0.09	0.58	0.01	1.64	0.02	0.30	0.01	97.76
*E-2_*	12	13.94	0.07	0.08	0.01	2.77	0.04	4.84	0.03	71.29	0.34	2.33	0.08	0.58	0.01	1.60	0.02	0.31	0.01	97.74
*E-2_*	13	13.96	0.07	0.05	0.00	2.34	0.04	4.98	0.03	71.71	0.34	2.46	0.09	0.54	0.01	1.56	0.02	0.32	0.01	97.92
*E-2_*	14	13.91	0.07	0.10	0.02	2.50	0.04	5.01	0.04	71.22	0.34	2.35	0.09	0.56	0.02	1.57	0.02	0.32	0.02	97.55
*E-2_*	15	14.09	0.07	0.10	0.01	2.41	0.04	5.05	0.04	70.79	0.34	2.24	0.08	0.57	0.01	1.66	0.02	0.31	0.01	97.22
*E-2_*	16	13.99	0.07	0.09	0.01	2.73	0.04	5.07	0.03	71.18	0.34	2.46	0.09	0.58	0.01	1.75	0.02	0.32	0.01	98.16
*E-2_*	17	13.54	0.07	0.12	0.01	3.02	0.04	5.02	0.04	70.62	0.34	2.31	0.08	0.64	0.01	1.96	0.02	0.32	0.01	97.56
*E-2_*	18	13.27	0.07	0.12	0.01	2.81	0.04	4.91	0.03	70.79	0.34	2.58	0.09	0.65	0.01	2.27	0.02	0.32	0.01	97.72
*E-2_*	19	12.63	0.07	0.16	0.01	2.47	0.04	4.73	0.03	70.33	0.34	3.08	0.10	0.74	0.02	2.61	0.03	0.30	0.01	97.04
*E-2_*	20	12.23	0.07	0.15	0.01	2.97	0.04	4.65	0.03	69.87	0.34	3.68	0.11	0.87	0.02	3.07	0.03	0.30	0.01	97.79
*E-2_*	21	11.89	0.07	0.17	0.01	2.48	0.04	4.48	0.03	69.00	0.34	3.71	0.11	0.93	0.02	3.11	0.03	0.29	0.01	96.06
*E-2_*	22	11.39	0.06	0.16	0.01	2.66	0.04	4.48	0.03	70.43	0.34	3.62	0.11	0.84	0.02	2.97	0.03	0.27	0.01	96.82
*E-2_*	23	11.85	0.07	0.14	0.01	2.24	0.04	4.58	0.03	71.77	0.34	3.10	0.10	0.66	0.01	2.58	0.03	0.25	0.01	97.17
*E-2_*	24	12.51	0.07	0.15	0.01	2.65	0.04	4.73	0.03	71.93	0.35	2.45	0.09	0.49	0.01	2.09	0.02	0.24	0.01	97.25
*E-2_*	25	12.47	0.07	0.08	0.01	2.29	0.04	4.68	0.03	72.89	0.34	2.19	0.08	0.45	0.01	1.85	0.02	0.25	0.01	97.15
*E-2_*	26	12.37	0.07	0.11	0.01	2.16	0.03	4.64	0.03	73.93	0.35	2.12	0.08	0.44	0.01	1.70	0.02	0.23	0.01	97.70
*E-2_*	27	12.75	0.07	0.08	0.01	2.30	0.04	4.49	0.03	73.20	0.34	2.24	0.08	0.48	0.01	1.66	0.02	0.24	0.01	97.44
*E-2_*	28	12.71	0.07	0.11	0.01	1.77	0.03	4.41	0.03	74.55	0.35	2.23	0.08	0.44	0.01	1.66	0.02	0.24	0.01	98.12
*E-2_*	29	12.61	0.07	0.10	0.01	1.97	0.03	4.34	0.03	73.75	0.35	2.31	0.08	0.44	0.01	1.73	0.02	0.23	0.01	97.48
*E-2_*	30	12.83	0.07	0.11	0.01	1.65	0.03	4.21	0.03	73.99	0.35	2.35	0.08	0.46	0.01	1.71	0.02	0.26	0.01	97.58
*E-2_*	31	13.05	0.07	0.11	0.01	1.54	0.03	4.10	0.03	73.52	0.35	2.40	0.09	0.43	0.01	1.86	0.02	0.25	0.01	97.26
*E-2_*	32	13.08	0.07	0.11	0.01	1.72	0.03	4.00	0.03	74.05	0.35	2.36	0.08	0.46	0.01	1.92	0.02	0.25	0.01	97.95
*E-2_*	33	12.59	0.07	0.14	0.01	1.57	0.03	3.89	0.03	74.60	0.35	2.30	0.08	0.44	0.01	1.95	0.02	0.27	0.01	97.75
*E-2_*	34	12.88	0.07	0.13	0.01	1.74	0.03	3.82	0.03	74.04	0.35	2.41	0.09	0.47	0.01	2.01	0.02	0.24	0.01	97.74
*E-2_*	35	12.98	0.07	0.12	0.01	1.67	0.03	3.73	0.03	73.92	0.35	2.35	0.08	0.49	0.01	2.07	0.02	0.26	0.01	97.59
*E-2_*	36	12.79	0.07	0.10	0.01	1.76	0.03	3.69	0.03	73.75	0.35	2.54	0.09	0.48	0.01	2.12	0.02	0.25	0.01	97.48
*E-2_*	37	12.93	0.07	0.11	0.01	1.47	0.03	3.60	0.03	74.33	0.35	2.28	0.08	0.48	0.01	2.17	0.02	0.23	0.01	97.60
*E-2_*	38	12.93	0.07	0.12	0.01	1.29	0.03	3.57	0.03	74.28	0.35	2.49	0.09	0.46	0.01	2.15	0.02	0.25	0.01	97.55
*E-2_*	39	12.65	0.07	0.09	0.01	1.66	0.03	3.58	0.03	74.93	0.35	2.35	0.08	0.49	0.01	2.25	0.02	0.25	0.01	98.24
*E-2_*	40	12.86	0.07	0.12	0.01	1.45	0.03	3.47	0.03	75.34	0.35	2.27	0.08	0.48	0.01	2.23	0.02	0.29	0.01	98.50

*Values presented as weight %

**Uncertainties are based on counting statistics

****Interface points are highlighted in yellow*

Table EA3.1

Electron probe microanalysis spots on feldspars in soil collected proximate to ground zero, with cation balance and end member calculations.

Normalized Analysis (wt %)

Analysis #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
SiO2	63.36	61.43	58.20	58.09	66.43	59.29	59.86	59.63	64.28	66.07	66.99	57.33	64.14	64.71	64.22	62.36	65.63	68.49
TiO2	0.10	0.13	0.07	0.00	0.00	0.09	0.08	0.04	0.04	0.02	0.05	0.06	0.00	0.05	0.00	0.01	0.00	0.07
Al2O3	20.69	20.73	24.48	26.00	18.95	24.69	24.58	25.01	20.34	20.03	20.00	26.54	22.26	19.91	22.65	22.99	19.69	17.49
FeO	0.29	0.25	0.84	0.38	1.03	0.34	0.37	0.30	0.19	0.10	0.11	0.59	0.17	0.27	0.17	0.14	0.09	2.22
MnO	0.10	0.01	0.06	0.02	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01
MgO	0.00	0.00	0.09	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.01	0.00	0.00
CaO	1.09	1.12	6.26	7.13	0.01	6.01	5.60	6.15	0.90	0.33	0.44	8.32	3.00	0.51	3.06	3.30	0.22	0.00
Na2O	4.65	4.73	6.00	6.53	6.73	6.92	7.18	6.77	5.67	6.88	7.24	5.75	8.83	4.01	8.86	8.81	4.01	6.33
K2O	8.46	8.30	2.11	1.39	6.68	1.75	1.65	1.66	7.87	6.77	6.06	1.55	1.31	10.39	1.33	1.23	11.04	7.29
total	98.74	96.70	98.12	99.56	99.83	99.09	99.32	99.63	99.33	100.20	100.90	100.17	99.71	99.84	100.29	98.87	100.68	101.90

Cations

Analysis #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Si	2.90	2.87	2.67	2.61	2.99	2.67	2.69	2.68	2.91	2.95	2.97	2.58	2.85	2.94	2.84	2.79	2.96	3.04
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Al	1.12	1.14	1.32	1.38	1.00	1.31	1.30	1.32	1.09	1.05	1.04	1.41	1.17	1.07	1.18	1.21	1.05	0.92
Fe2	0.01	0.01	0.03	0.01	0.04	0.01	0.01	0.01	0.01	0.00	0.00	0.02	0.01	0.01	0.01	0.01	0.00	0.08
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	0.05	0.06	0.31	0.34	0.00	0.29	0.27	0.30	0.04	0.02	0.02	0.40	0.14	0.02	0.14	0.16	0.01	0.00
Na	0.41	0.43	0.53	0.57	0.59	0.61	0.63	0.59	0.50	0.59	0.62	0.50	0.76	0.35	0.76	0.76	0.35	0.55
K	0.49	0.49	0.12	0.08	0.38	0.10	0.09	0.10	0.45	0.39	0.34	0.09	0.07	0.60	0.07	0.07	0.63	0.41
tot. cat.	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
tot. oxy.	8.01	7.98	8.00	7.98	8.00	7.98	7.98	8.00	7.98	7.98	8.01	7.99	8.02	8.00	8.01	7.98	7.99	8.02

End member (mole %)

Analysis #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Anorthite	5.54	5.71	31.89	34.61	0.05	29.15	27.24	30.18	4.39	1.58	2.13	40.45	14.61	2.51	14.80	15.94	1.05	0.00
Alibte	42.99	43.76	55.31	57.36	60.46	60.74	63.20	60.12	49.97	59.74	63.11	50.58	77.80	36.04	77.54	76.99	35.20	56.89
Orthoclase	51.46	50.53	12.80	8.03	39.49	10.11	9.56	9.70	45.64	38.68	34.76	8.97	7.59	61.45	7.66	7.07	63.76	43.11

Table EA3.2

Electron probe microanalysis spots on pyroxenes in soil collected proximate to ground zero, with cation balance and end member calculations.

Normalized Analysis (wt %)

Analysis #	1	2	3
SiO2	52.89	48.03	53.09
TiO2	0.35	1.56	0.31
Al2O3	0.76	5.91	0.76
Cr2O3	0.00	0.00	0.00
Fe2O3	0.25	4.60	0.00
FeO	18.50	4.04	18.66
MnO	0.69	0.12	0.72
MgO	23.49	14.30	22.81
CaO	1.68	21.51	1.61
Na2O	0.07	0.35	0.00
total	98.68	100.42	97.98

Cations

Analysis #	1	2	3
Si	1.97	1.78	2.00
Ti	0.01	0.04	0.01
Al	0.03	0.26	0.03
Cr	0.00	0.00	0.00
Fe3	0.01	0.13	0.00
Fe2	0.58	0.13	0.59
Mn	0.02	0.00	0.02
Mg	1.31	0.79	1.28
Ca	0.07	0.85	0.06
Na	0.01	0.03	0.00
tot. cat.	4.00	4.00	4.00
tot. oxy.	6.00	6.00	6.03

End members (mole %)

Analysis #	1	2	3
Wollastonite	3.43	45.01	3.36
Enstatite	66.73	41.63	66.24
Ferroslite	29.83	13.36	30.40

Table EA4.1

Energy dispersive x-ray spectroscopy spots across interfaces for 7 agglomerated aerodynamic fallout glass samples*

Sample ID	Spot #	Na	1σ**	Mg	1σ	Al	1σ	Si	1σ	K	1σ	Ca	1σ	Fe	1σ
A-1_	1	13930	118.03	6708	81.90	58184	241.21	228217	477.72	17183	131.08	6839	82.70	4135	64.30
A-1_	2	14648	121.03	6955	83.40	58383	241.63	231205	480.84	17216	131.21	6683	81.75	4178	64.64
A-1_	3	14477	120.32	6995	83.64	58160	241.16	231307	480.94	17312	131.58	6597	81.22	4133	64.29
A-1_	4	14368	119.87	6828	82.63	57969	240.77	231970	481.63	17288	131.48	6684	81.76	4206	64.85
A-1_	5	14782	121.58	6671	81.68	56882	238.50	231850	481.51	17209	131.18	6697	81.84	4071	63.80
A-1_	6	14578	120.74	6918	83.17	56631	237.97	233408	483.12	17369	131.79	6668	81.66	4043	63.58
A-1_	7	14610	120.87	6593	81.20	56473	237.64	233690	483.41	17395	131.89	6681	81.74	3841	61.98
A-1_	8	14636	120.98	6690	81.79	55487	235.56	234449	484.20	17203	131.16	6956	83.40	3961	62.94
A-1_	9	14702	121.25	6668	81.66	54967	234.45	234853	484.62	17438	132.05	6814	82.55	4070	63.80
A-1_	10	14657	121.07	6749	82.15	55326	235.21	234801	484.56	17095	130.75	6791	82.41	3980	63.09
A-1_	11	14896	122.05	6952	83.38	54949	234.41	234802	484.56	16891	129.97	7165	84.65	4009	63.32
A-1_	12	14822	121.75	6932	83.26	54546	233.55	234417	484.17	16868	129.88	7245	85.12	3995	63.21
A-1_	13	14461	120.25	6926	83.22	53755	231.85	235492	485.28	16967	130.26	7511	86.67	4121	64.20
A-1_	14	14583	120.76	7033	83.86	52515	229.16	236600	486.42	16539	128.60	7592	87.13	4312	65.67
A-1_	15	14950	122.27	7156	84.59	51192	226.26	235740	485.53	16697	129.22	7786	88.24	4271	65.35
A-1_	16	16883	129.93	7042	83.92	50434	224.58	235078	484.85	16589	128.80	7866	88.69	4356	66.00
A-1_	17	18670	136.64	7234	85.05	49614	222.74	232952	482.65	16322	127.76	8254	90.85	4713	68.65
A-1_	18	18867	137.36	7202	84.86	47850	218.75	231541	481.19	16086	126.83	8366	91.47	5406	73.53
A-1_	19	18556	136.22	7719	87.86	44141	210.10	233217	482.93	15687	125.25	8670	93.11	6328	79.55
A-1_	20	17355	131.74	7794	88.28	41450	203.59	236982	486.81	15329	123.81	8838	94.01	6661	81.61
A-1_	21	15848	125.89	7409	86.08	42639	206.49	239338	489.22	15193	123.26	8290	91.05	6093	78.06
A-1_	22	13480	116.10	7495	86.57	46431	215.48	239751	489.64	15227	123.40	7737	87.96	5463	73.91
A-1_	23	12049	109.77	7121	84.39	50988	225.81	236777	486.60	15372	123.98	7686	87.67	5022	70.87
A-1_	24	11972	109.42	7451	86.32	57158	239.08	233107	482.81	15706	125.32	7569	87.00	4561	67.54
A-1_	25	12614	112.31	7347	85.71	61105	247.19	228454	477.97	15967	126.36	7704	87.77	4566	67.57
A-1_	26	12749	112.91	7245	85.12	63618	252.23	225868	475.26	15789	125.65	7496	86.58	4256	65.24
A-1_	27	12773	113.02	7450	86.31	64947	254.85	224946	474.28	15827	125.81	7731	87.93	4367	66.08
A-1_	28	12541	111.99	7365	85.82	66192	257.28	224780	474.11	15667	125.17	7592	87.13	4464	66.81
A-1_	29	12738	112.86	7459	86.37	67290	259.40	222830	472.05	15569	124.78	7701	87.76	4418	66.47
A-1_	30	12535	111.96	7530	86.78	68254	261.25	221880	471.04	15159	123.12	7706	87.78	4293	65.52
A-1_	31	12384	111.28	7792	88.27	68357	261.45	221310	470.44	14959	122.31	7829	88.48	4512	67.17
A-1_	32	12444	111.55	7789	88.26	68968	262.62	221004	470.11	14866	121.93	7928	89.04	4521	67.24
A-1_	33	12333	111.05	7915	88.97	69315	263.28	221296	470.42	14601	120.83	8147	90.26	4505	67.12
A-1_	34	12374	111.24	7892	88.84	69164	262.99	219662	468.68	14777	121.56	8230	90.72	4602	67.84
A-1_	35	12337	111.07	8047	89.71	69499	263.63	219408	468.41	14529	120.54	8339	91.32	4603	67.85
A-1_	36	12172	110.33	8086	89.92	69804	264.20	219465	468.47	14289	119.54	8424	91.78	4621	67.98
A-1_	37	12134	110.15	8001	89.45	69650	263.91	219928	468.96	14471	120.30	8484	92.11	4778	69.12
A-1_	38	11985	109.48	8104	90.02	70178	264.91	219384	468.38	14115	118.81	8539	92.41	4728	68.76
A-1_	39	12059	109.81	8119	90.11	70079	264.72	219251	468.24	13953	118.12	8599	92.73	4721	68.71
A-1_	40	12121	110.10	8008	89.49	70453	265.43	218235	467.16	14199	119.16	8893	94.30	4874	69.81
B-3_	1	2803	52.94	1049	32.39	7519	86.71	30684	175.17	2569	50.69	1246	35.30	555	23.56
B-3_	2	2865	53.53	1042	32.28	7464	86.39	31393	177.18	2474	49.74	1233	35.11	534	23.11
B-3_	3	2778	52.71	1029	32.08	7624	87.32	30980	176.01	2573	50.72	1216	34.87	553	23.52
B-3_	4	2667	51.64	1021	31.95	7705	87.78	31217	176.68	2449	49.49	1322	36.36	547	23.39
B-3_	5	2871	53.58	1050	32.40	7924	89.02	31313	176.95	2494	49.94	1241	35.23	591	24.31
B-3_	6	2726	52.21	1046	32.34	7814	88.40	31247	176.77	2449	49.49	1364	36.93	615	24.80
B-3_	7	2771	52.64	1068	32.68	7694	87.72	31394	177.18	2395	48.94	1352	36.77	603	24.56
B-3_	8	2722	52.17	1043	32.30	7878	88.76	31222	176.70	2386	48.85	1296	36.00	576	24.00
B-3_	9	2708	52.04	1099	33.15	7543	86.85	31364	177.10	2449	49.49	1294	35.97	600	24.49
B-3_	10	2618	51.17	1051	32.42	7428	86.19	31825	178.40	2342	48.39	1316	36.28	590	24.29
B-3_	11	2493	49.93	1024	32.00	7357	85.77	32387	179.96	2414	49.13	1213	34.83	598	24.45
B-3_	12	2490	49.90	1010	31.78	7284	85.35	32367	179.91	2447	49.47	1297	36.01	580	24.08
B-3_	13	2445	49.45	1095	33.09	7212	84.92	32443	180.12	2422	49.21	1196	34.58	605	24.60
B-3_	14	2366	48.64	959	30.97	7042	83.92	32768	181.02	2374	48.72	1149	33.90	567	23.81
B-3_	15	2355	48.53	959	30.97	7104	84.29	32718	180.88	2377	48.75	1174	34.26	561	23.69
B-3_	16	2348	48.46	991	31.48	7278	85.31	32956	181.54	2316	48.12	1169	34.19	575	23.98
B-3_	17	2325	48.22	1012	31.81	7335	85.64	32646	180.68	2239	47.32	1180	34.35	563	23.73
B-3_	18	2389	48.88	1018	31.91	7266	85.24	32785	181.07	2285	47.80	1121	33.48	535	23.13
B-3_	19	2411	49.10	1039	32.23	7149	84.55	32984	181.61	2291	47.86	1165	34.13	583	24.15
B-3_	20	2327	48.24	1046	32.34	7216	84.95	32656	180.71	2215	47.06	1137	33.72	550	23.45
B-3_	21	2439	49.39	1026	32.03	7364	85.81	32606	180.57	2250	47.43	1159	34.04	561	23.69
B-3_	22	2324	48.21	997	31.58	7549	86.88	32928	181.46	2338	48.35	1169	34.19	564	23.75
B-3_	23	2345	48.43	992	31.50	7492	86.56	32699	180.83	2255	47.49	1134	33.67	577	24.02
B-3_	24	2395	48.94	1008	31.75	7583	87.08	33034	181.75	2224	47.16	1111	33.33	596	24.41
B-3_	25	2270	47.64	991	31.48	7424	86.16	32770	181.02	2193	46.83	1180	34.35	593	24.35
B-3_	26	2305	48.01	1012	31.81	7481	86.49	32765	181.01	2339	48.36	1141	33.78	574	23.96
B-3_	27	2355	48.53	1028	32.06	7500	86.60	33086	181.90	2350	48.48	1212	34.81	598	24.45
B-3_	28	2293	47.89	1009	31.76	7529	86.77	32868	181.30	2331	48.28	1226	35.01	577	24.02
B-3_	29	2296	47.92	973	31.19	7473	86.45	32924	181.45	2173	46.62	1163	34.10	574	23.96
B-3_	30	2326	48.23	1003	31.67	7510	86.66	32857	181.26	2273	47.68	1156	34.00	562	23.71
B-3_	31	2343	48.40	1011	31.80	7426	86.17	32815	181.15	2156	46.43	1152	33.94	562	23.71
B-3_	32	2279	47.74	1039	32.23	7551	86.90	33123	182.00	2137	46.23	1146	33.85	535	23.13
B-3_	33	2227	47.19	1016	31.87	7432	86.21	33030	181.74	2188	46.78	1106	33.26	563	23.73
B-3_	34	2273	47.68	1032	32.12	7577	87.05	32875	181.31	2249	47.42	1163	34.10	529	23.00
B-3_	35	2265	47.59	1014	31.84	7418	86.13	33140	182.04	2240	47.33	1153	33.96	552	23.49
B-3_	36	2222	47.14	946	30.76	7432	86.21	33151	182.07	2069	45.49	1164	34.12	515	22.69
B-3_	37	2264	47.58	999	31.61	7396	86.00	33139	182.04	2157	46.44	1127	33.57	593	24.35
B-3_	38	2198	46.88	1033	32.14	7590	87.12	33062	181.83	2204	46.95	1211	34.80	538	23.19
B-3_	39	2244	47.37	968	31.11	7394	85.99	33053	181.80	2211	47.02	1217	34.89	600	24.49
B-3_	40	2185	46.74	974	31.21	7426	86.17	33314	182.52	2175	46.64	1150	33.91	546	23.37
B-3_	41	2302	47.98	995	31.54	7327	85.60	33534	183.12	2157	46.44	1227	35.03	518	22.76
B-3_	42	2112	45.96	959	30.97	7333	85.63	33407	182.78	2240	47.33	1206	34.73	580	24.08
B-3_	43	2283	47.78	971	31.16	7167	84.66	33311	182.51	2121	46.05	1216	34.87	566	23.79
B-3_	44	2094	45.76	1034	32.16	7392	85.98	33364	182.66	2058	45.37	1208	34.76	601	24.52
B-3_	45	2245	47.38	999	31.61	7293	85.40	33459	182.92	2024	44.99	1225	35.00	614	24.78
B-3_	46	2150	46.37	1030	32.09	7303	85.46	33401	182.76	2056	45.34	1213	34.83	584	24.17
B-3_	47	2196	46.86	955	30.90	7403	86.04	33400	182.76	2028	45.03	1162	34.09	611	24.72
B-3_	48	2142	46.28	1049	32.39	7140	84.50	33521	183.09	2150	46.37	1226	35.01	563	23.73

EA4_2

*B-3_*	49	2184	46.73	988	31.43	7328	85.60	33790	183.82	2125	46.10	1211	34.80	573	23.94
*B-3_*	50	2195	46.85	957	30.94	7341	85.68	33671	183.50	2134	46.20	1233	35.11	538	23.19
*B-3_*	51	2155	46.42	998	31.59	7395	85.99	33884	184.08	2069	45.49	1279	35.76	538	23.19
*B-3_*	52	2173	46.62	990	31.46	7339	85.67	33256	182.36	2146	46.32	1192	34.53	593	24.35
*B-3_*	53	2098	45.80	1032	32.12	7153	84.58	33602	183.31	2063	45.42	1194	34.55	624	24.98
*B-3_*	54	2094	45.76	904	30.07	7195	84.82	33617	183.35	2107	45.90	1208	34.76	601	24.52
*B-3_*	55	2139	46.25	940	30.66	7202	84.86	33868	184.03	2043	45.20	1189	34.48	591	24.31
*B-3_*	56	2204	46.95	983	31.35	7481	86.49	33558	183.19	2061	45.40	1223	34.97	606	24.62
*B-3_*	57	2183	46.72	920	30.33	7343	85.69	33286	182.44	2065	45.44	1221	34.94	600	24.49
*B-3_*	58	2137	46.23	1002	31.65	7284	85.35	33079	181.88	2089	45.71	1218	34.90	535	23.13
*B-3_*	59	2088	45.69	1007	31.73	7383	85.92	33669	183.49	2057	45.35	1218	34.90	560	23.66
*B-3_*	60	2132	46.17	1000	31.62	7301	85.45	33733	183.67	2079	45.60	1250	35.36	631	25.12
*B-3_*	61	2123	46.08	941	30.68	7344	85.70	33699	183.57	2038	45.14	1203	34.68	590	24.29
*B-3_*	62	2114	45.98	956	30.92	7363	85.81	33224	182.27	1994	44.65	1230	35.07	613	24.76
*B-3_*	63	2096	45.78	1008	31.75	7465	86.40	33440	182.87	2102	45.85	1257	35.45	585	24.19
*B-3_*	64	2192	46.82	970	31.14	7483	86.50	33316	182.53	2087	45.68	1218	34.90	589	24.27
*B-3_*	65	2188	46.78	952	30.85	7274	85.29	33674	183.50	2078	45.59	1287	35.87	581	24.10
*B-3_*	66	2129	46.14	968	31.11	7326	85.59	33513	183.07	2057	45.35	1303	36.10	560	23.66
*B-3_*	67	2079	45.60	958	30.95	7346	85.71	33304	182.49	2175	46.64	1260	35.50	612	24.74
*B-3_*	68	2138	46.24	984	31.37	7434	86.22	33475	182.96	2071	45.51	1224	34.99	589	24.27
*B-3_*	69	2123	46.08	966	31.08	7279	85.32	33796	183.84	2031	45.07	1199	34.63	598	24.45
*B-3_*	70	2106	45.89	1005	31.70	7086	84.18	33757	183.73	2006	44.79	1244	35.27	556	23.58
*B-3_*	71	2118	46.02	1010	31.78	7142	84.51	33480	182.98	2094	45.76	1239	35.20	572	23.92
*B-3_*	72	2103	45.86	971	31.16	7095	84.23	33326	182.55	2092	45.74	1229	35.06	565	23.77
*B-3_*	73	2089	45.71	980	31.30	7314	85.52	33635	183.40	2080	45.61	1227	35.03	566	23.79
*B-3_*	74	2150	46.37	988	31.43	7402	86.03	33453	182.90	2048	45.25	1286	35.86	590	24.29
*B-3_*	75	2072	45.52	1018	31.91	7349	85.73	33438	182.86	2024	44.99	1265	35.57	582	24.12
*B-3_*	76	2098	45.80	917	30.28	7315	85.53	33350	182.62	2150	46.37	1343	36.65	608	24.66
*B-3_*	77	2160	46.48	947	30.77	7326	85.59	33188	182.18	2160	46.48	1380	37.15	581	24.10
*B-3_*	78	2111	45.95	1029	32.08	7487	86.53	32907	181.40	2160	46.48	1361	36.89	582	24.12
*B-3_*	79	2219	47.11	1065	32.63	7447	86.30	33025	181.73	2162	46.50	1441	37.96	621	24.92
*B-3_*	80	2165	46.53	1011	31.80	7620	87.29	33040	181.77	2077	45.57	1329	36.46	617	24.84
*B-3_*	81	2109	45.92	969	31.13	7466	86.41	32935	181.48	2126	46.11	1313	36.24	619	24.88
*B-3_*	82	2126	46.11	1041	32.26	7480	86.49	33353	182.63	2097	45.79	1386	37.23	601	24.52
*B-3_*	83	2140	46.26	960	30.98	7577	87.05	33186	182.17	2035	45.11	1352	36.77	625	25.00
*B-3_*	84	2182	46.71	1045	32.33	7647	87.45	32876	181.32	1993	44.64	1329	36.46	613	24.76
*B-3_*	85	2036	45.12	976	31.24	7629	87.34	33583	183.26	2141	46.27	1423	37.72	611	24.72
*B-3_*	86	2182	46.71	971	31.16	7512	86.67	33278	182.42	2010	44.83	1370	37.01	612	24.74
*B-3_*	87	2190	46.80	992	31.50	7644	87.43	33101	181.94	2146	46.32	1366	36.96	599	24.47
*B-3_*	88	2148	46.35	948	30.79	7651	87.47	33191	182.18	2052	45.30	1397	37.38	588	24.25
*B-3_*	89	2132	46.17	977	31.26	7670	87.58	32934	181.48	2027	45.02	1383	37.19	606	24.62
*B-3_*	90	2168	46.56	1033	32.14	7597	87.16	33043	181.78	2030	45.06	1441	37.96	635	25.20
*B-3_*	91	2215	47.06	957	30.94	7682	87.65	33152	182.08	2092	45.74	1460	38.21	601	24.52
*B-3_*	92	2218	47.10	964	31.05	7773	88.16	32991	181.63	2068	45.48	1332	36.50	603	24.56
*B-3_*	93	2186	46.75	1027	32.05	7746	88.01	32509	180.30	2166	46.54	1469	38.33	629	25.08
*B-3_*	94	2252	47.46	1036	32.19	7872	88.72	32840	181.22	2080	45.61	1502	38.76	618	24.86
*B-3_*	95	2158	46.45	960	30.98	7918	88.98	32557	180.44	2053	45.31	1469	38.33	582	24.12
*B-3_*	96	2156	46.43	995	31.54	7815	88.40	33245	182.33	2098	45.80	1459	38.20	607	24.64
*B-3_*	97	2165	46.53	1014	31.84	7826	88.46	32686	180.79	2130	46.15	1463	38.25	590	24.29
*B-3_*	98	2221	47.13	1030	32.09	7788	88.25	32755	180.98	2078	45.59	1370	37.01	582	24.12
*B-3_*	99	2301	47.97	1016	31.87	7561	86.95	32951	181.52	1985	44.55	1402	37.44	610	24.70
*B-3_*	100	2194	46.84	942	30.69	7612	87.25	32983	181.61	2067	45.46	1424	37.74	597	24.43
*B-3_*	101	2174	46.63	1027	32.05	7880	88.77	32868	181.30	1970	44.38	1415	37.62	609	24.68
*B-3_*	102	2203	46.94	1033	32.14	7791	88.27	33011	181.69	2087	45.68	1471	38.35	561	23.69
*B-3_*	103	2112	45.96	1017	31.89	7662	87.53	33019	181.71	2081	45.62	1384	37.20	581	24.10
*B-3_*	104	2261	47.55	1008	31.75	7869	88.71	32656	180.71	2088	45.69	1402	37.44	580	24.08
*B-3_*	105	2167	46.55	1043	32.30	7588	87.11	33443	182.87	2094	45.76	1509	38.85	601	24.52
*B-3_*	106	2110	45.93	1034	32.16	7663	87.54	32750	180.97	2000	44.72	1394	37.34	599	24.47
*B-3_*	107	2150	46.37	992	31.50	7786	88.24	33066	181.84	2080	45.61	1458	38.18	600	24.49
*B-3_*	108	2203	46.94	1007	31.73	7734	87.94	33365	182.66	2063	45.42	1386	37.23	600	24.49
*B-3_*	109	2238	47.31	965	31.06	7657	87.50	32822	181.17	2099	45.81	1449	38.07	595	24.39
*B-3_*	110	2190	46.80	973	31.19	7680	87.64	33136	182.03	2154	46.41	1430	37.82	573	23.94
*B-3_*	111	2152	46.39	1030	32.09	7723	87.88	33162	182.10	2127	46.12	1490	38.60	570	23.87
*B-3_*	112	2171	46.59	999	31.61	7727	87.90	32847	181.24	2077	45.57	1462	38.24	631	25.12
*B-3_*	113	2250	47.43	996	31.56	7878	88.76	33158	182.09	2129	46.14	1341	36.62	609	24.68
*B-3_*	114	2119	46.03	983	31.35	7781	88.21	32916	181.43	2082	45.63	1416	37.63	599	24.47
*B-3_*	115	2193	46.83	980	31.30	7770	88.15	32750	180.97	2177	46.66	1327	36.43	630	25.10
*B-3_*	116	2123	46.08	998	31.59	7834	88.51	32804	181.12	2139	46.25	1451	38.09	560	23.66
*B-3_*	117	2153	46.40	919	30.32	7735	87.95	32769	181.02	2142	46.28	1419	37.67	616	24.82
*B-3_*	118	2189	46.79	985	31.38	7888	88.81	33077	181.87	2196	46.86	1362	36.91	601	24.52
*B-3_*	119	2236	47.29	942	30.69	7632	87.36	32725	180.90	2083	45.64	1417	37.64	582	24.12
*B-3_*	120	2117	46.01	1016	31.87	7813	88.39	32702	180.84	2192	46.82	1416	37.63	579	24.06
*B-3_*	121	2241	47.34	1052	32.43	7756	88.07	32836	181.21	2093	45.75	1420	37.68	600	24.49
*B-3_*	122	2280	47.75	972	31.18	7572	87.02	33110	181.96	2199	46.89	1377	37.11	595	24.39
*B-3_*	123	2213	47.04	1001	31.64	7868	88.70	33193	182.19	2181	46.70	1342	36.63	567	23.81
*B-3_*	124	2159	46.47	995	31.54	7597	87.16	32810	181.14	2144	46.30	1444	38.00	585	24.19
*B-3_*	125	2154	46.41	986	31.40	7826	88.46	33219	182.26	2235	47.28	1460	38.21	512	22.63
*B-3_*	126	2214	47.05	991	31.48	7696	87.73	32857	181.26	2152	46.39	1489	38.59	568	23.83
*B-3_*	127	2171	46.59	1029	32.08	7677	87.62	33021	181.72	2156	46.43	1366	36.96	564	23.75
*B-3_*	128	2237	47.30	987	31.42	7655	87.49	33058	181.82	2167	46.55	1390	37.28	580	24.08
*B-3_*	129	2234	47.27	940	30.66	7737	87.96	32864	181.28	2229	47.21	1523	39.03	586	24.21
*B-3_*	130	2317	48.14	1049	32.39	7841	88.55	32832	181.20	2138	46.24	1496	38.68	608	24.66
*B-3_*	131	2300	47.96	1129	33.60	7595	87.15	32745	180.96	2173	46.62	1508	38.83	615	24.80
*B-3_*	132	2309	48.05	1002	31.65	7701	87.76	33145	182.06	2193	46.83	1565	39.56	566	23.79
*B-3_*	133	2265	47.59	1030	32.09	7430	86.20	33141	182.05	2106	45.89	1555	39.43	620	24.90
*B-3_*	134	2071	45.51	987	31.42	6951	83.37	33505	183.04	2199	46.89	1437	37.91	599	24.47
*B-3_*	135	2162	46.50	988	31.43	6693	81.81	33882	184.07	2184	46.73	1418	37.66	592	24.33
*B-3_*	136	2112	45.96	1024	32.00	6560	80.99	34048	184.52	2172	46.60	1402	37.44	593	24.35
*B-3_*	137	2119	46.03	1047	32.36	6698	81.84	34119	184.71	2153	46.40	1367	36.97	670	25.88
*B-3_*	138	2173	46.62	1021	31.95	6448	80.30	33718	183.62	2168	46.56	1442	37.97	582	24.12
*B-3_*	139	2157	46.44	1021	31.95	6796	82.44	33742	183.69	2172	46.60	1448	38.05	607	24.64
*B-3_*	140	2169	46.57	1056	32.50	6871	82.89	33360	182.65	2202	46.93	1520	38.99	662	25.73
*B-3_*	141	2196	46.86	1099	33.15	7067	84.07	33452	182.90	2212	47.03	1526	39.06	609	24.68

EA4_3

*B-3_*	142	2348	48.46	1030	32.09	7267	85.25	33115	181.98	2261	47.55	1516	38.94	617	24.84
*B-3_*	143	2223	47.15	1068	32.68	7226	85.01	33001	181.66	2279	47.74	1548	39.34	581	24.10
*B-3_*	144	2227	47.19	945	30.74	7601	87.18	32748	180.96	2279	47.74	1569	39.61	646	25.42
*B-3_*	145	2305	48.01	1057	32.51	7733	87.94	32568	180.47	2242	47.35	1609	40.11	644	25.38
*B-3_*	146	2369	48.67	1031	32.11	7878	88.76	32419	180.05	2303	47.99	1678	40.96	589	24.27
*B-3_*	147	2330	48.27	1051	32.42	8126	90.14	32233	179.54	2376	48.74	1634	40.42	606	24.62
*B-3_*	148	2414	49.13	1031	32.11	8019	89.55	32367	179.91	2314	48.10	1578	39.72	631	25.12
*B-3_*	149	2405	49.04	977	31.26	8145	90.25	32199	179.44	2313	48.09	1646	40.57	584	24.17
*B-3_*	150	2362	48.60	1083	32.91	8118	90.10	32070	179.08	2327	48.24	1556	39.45	620	24.90
*B-3_*	151	2369	48.67	1014	31.84	8174	90.41	32211	179.47	2328	48.25	1591	39.89	588	24.25
*B-3_*	152	2339	48.36	1016	31.87	8160	90.33	32385	179.96	2231	47.23	1522	39.01	555	23.56
*B-3_*	153	2375	48.73	992	31.50	8264	90.91	31987	178.85	2322	48.19	1575	39.69	587	24.23
*B-3_*	154	2379	48.77	1003	31.67	8220	90.66	32339	179.83	2330	48.27	1595	39.94	622	24.94
*B-3_*	155	2399	48.98	1017	31.89	7989	89.38	31970	178.80	2320	48.17	1582	39.77	585	24.19
*B-3_*	156	2440	49.40	983	31.35	8372	91.50	32056	179.04	2292	47.87	1560	39.50	557	23.60
*B-3_*	157	2316	48.12	1030	32.09	8158	90.32	32337	179.82	2317	48.14	1524	39.04	590	24.29
*B-3_*	158	2334	48.31	1002	31.65	8112	90.07	32160	179.33	2323	48.20	1607	40.09	582	24.12
*B-3_*	159	2375	48.73	1010	31.78	8114	90.08	32214	179.48	2275	47.70	1520	38.99	571	23.90
*B-3_*	160	2411	49.10	1042	32.28	8103	90.02	32257	179.60	2231	47.23	1563	39.53	597	24.43
*B-3_*	161	2359	48.57	1011	31.80	8233	90.74	32373	179.92	2259	47.53	1585	39.81	551	23.47
*B-3_*	162	2285	47.80	1079	32.85	8344	91.35	31889	178.57	2313	48.09	1514	38.91	601	24.52
*B-3_*	163	2346	48.44	1071	32.73	8128	90.16	31907	178.63	2332	48.29	1484	38.52	581	24.10
*B-3_*	164	2384	48.83	992	31.50	8211	90.61	32224	179.51	2281	47.76	1568	39.60	586	24.21
*B-3_*	165	2300	47.96	1086	32.95	7986	89.36	32407	180.02	2325	48.22	1527	39.08	591	24.31
*B-3_*	166	2341	48.38	1011	31.80	8168	90.38	32103	179.17	2379	48.77	1530	39.12	606	24.62
*B-3_*	167	2368	48.66	1032	32.12	8303	91.12	32253	179.59	2238	47.31	1438	37.92	610	24.70
*B-3_*	168	2329	48.26	1035	32.17	8213	90.63	32281	179.67	2226	47.18	1534	39.17	572	23.92
*B-3_*	169	2347	48.45	1039	32.23	8223	90.68	32167	179.35	2230	47.22	1576	39.70	617	24.84
*B-3_*	170	2305	48.01	1055	32.48	8313	91.18	32215	179.49	2278	47.73	1521	39.00	558	23.62
*B-3_*	171	2274	47.69	1026	32.03	8363	91.45	32161	179.33	2326	48.23	1520	38.99	614	24.78
*B-3_*	172	2422	49.21	1057	32.51	8108	90.04	32360	179.89	2343	48.40	1506	38.81	598	24.45
*B-3_*	173	2353	48.51	1085	32.94	8154	90.30	32115	179.21	2236	47.29	1593	39.91	590	24.29
*B-3_*	174	2282	47.77	964	31.05	8113	90.07	31985	178.84	2297	47.93	1490	38.60	605	24.60
*B-3_*	175	2353	48.51	1036	32.19	8104	90.02	32081	179.11	2227	47.19	1596	39.95	622	24.94
*B-3_*	176	2361	48.59	1010	31.78	8331	91.27	32232	179.53	2331	48.28	1439	37.93	570	23.87
*B-3_*	177	2382	48.81	956	30.92	8310	91.16	31911	178.64	2184	46.73	1552	39.40	605	24.60
*B-3_*	178	2264	47.58	1009	31.76	8198	90.54	32360	179.89	2232	47.24	1540	39.24	580	24.08
*B-3_*	179	2334	48.31	1079	32.85	8356	91.41	32032	178.97	2339	48.36	1501	38.74	597	24.43
*B-3_*	180	2380	48.79	956	30.92	8373	91.50	31958	178.77	2278	47.73	1552	39.40	602	24.54
*B-3_*	181	2396	48.95	1065	32.63	8463	91.99	32079	179.11	2329	48.26	1455	38.14	591	24.31
*B-3_*	182	2323	48.20	992	31.50	8354	91.40	31928	178.68	2297	47.93	1535	39.18	622	24.94
*B-3_*	183	2346	48.44	1038	32.22	8616	92.82	31801	178.33	2183	46.72	1540	39.24	563	23.73
*B-3_*	184	2378	48.76	1029	32.08	8435	91.84	31953	178.75	2239	47.32	1526	39.06	560	23.66
*B-3_*	185	2337	48.34	993	31.51	8405	91.68	31792	178.30	2247	47.40	1571	39.64	573	23.94
*B-3_*	186	2343	48.40	1020	31.94	8322	91.22	32056	179.04	2235	47.28	1488	38.57	602	24.54
*B-3_*	187	2237	47.30	1003	31.67	8530	92.36	31776	178.26	2275	47.70	1542	39.27	639	25.28
*B-3_*	188	2264	47.58	1067	32.66	8236	90.75	31869	178.52	2163	46.51	1561	39.51	607	24.64
*B-3_*	189	2356	48.54	1023	31.98	8562	92.53	31701	178.05	2179	46.68	1538	39.22	593	24.35
*B-3_*	190	2348	48.46	1107	33.27	8456	91.96	31945	178.73	2319	48.16	1547	39.33	639	25.28
*B-3_*	191	2305	48.01	1060	32.56	8538	92.40	31551	177.63	2271	47.66	1552	39.40	664	25.77
*B-3_*	192	2302	47.98	1023	31.98	8449	91.92	31972	178.81	2353	48.51	1504	38.78	573	23.94
*B-3_*	193	2371	48.69	1021	31.95	8418	91.75	31805	178.34	2170	46.58	1571	39.64	623	24.96
*B-3_*	194	2267	47.61	1034	32.16	8379	91.54	32161	179.33	2265	47.59	1511	38.87	652	25.53
*B-3_*	195	2276	47.71	1000	31.62	8342	91.33	32086	179.13	2259	47.53	1537	39.20	592	24.33
*B-3_*	196	2308	48.04	1080	32.86	8251	90.84	31844	178.45	2224	47.16	1451	38.09	615	24.80
*B-3_*	197	2244	47.37	1057	32.51	8154	90.30	32240	179.56	2244	47.37	1473	38.38	584	24.17
*B-3_*	198	2263	47.57	1001	31.64	8288	91.04	31899	178.60	2265	47.59	1473	38.38	604	24.58
*B-3_*	199	2274	47.69	1039	32.23	8054	89.74	32625	180.62	2153	46.40	1439	37.93	589	24.27
*B-3_*	200	2265	47.59	1002	31.65	8214	90.63	32182	179.39	2265	47.59	1460	38.21	617	24.84
*B-3_*	201	2190	46.80	1031	32.11	8040	89.67	32180	179.39	2269	47.63	1407	37.51	599	24.47
*B-3_*	202	2210	47.01	979	31.29	7888	88.81	32512	180.31	2243	47.36	1451	38.09	564	23.75
*B-3_*	203	2134	46.20	978	31.27	8105	90.03	32584	180.51	2276	47.71	1411	37.56	627	25.04
*B-3_*	204	2161	46.49	1010	31.78	7968	89.26	32843	181.23	2194	46.84	1486	38.55	608	24.66
*B-3_*	205	2317	48.14	1021	31.95	7936	89.08	31956	178.76	2220	47.12	1361	36.89	561	23.69
*B-3_*	206	2268	47.62	1026	32.03	7830	88.49	32682	180.78	2205	46.96	1400	37.42	592	24.33
*B-3_*	207	2263	47.57	1013	31.83	7894	88.85	32626	180.63	2253	47.47	1475	38.41	579	24.06
*B-3_*	208	2289	47.84	1011	31.80	7908	88.93	32763	181.01	2197	46.87	1394	37.34	574	23.96
*B-3_*	209	2212	47.03	963	31.03	7929	89.04	32543	180.40	2201	46.91	1495	38.67	592	24.33
*B-3_*	210	2209	47.00	984	31.37	8160	90.33	32586	180.52	2247	47.40	1346	36.69	614	24.78
*B-3_*	211	2254	47.48	1076	32.80	8111	90.06	32443	180.12	2168	46.56	1465	38.28	601	24.52
*B-3_*	212	2274	47.69	978	31.27	7974	89.30	32361	179.89	2211	47.02	1447	38.04	559	23.64
*B-3_*	213	2290	47.85	1011	31.80	7982	89.34	32343	179.84	2176	46.65	1414	37.60	572	23.92
*B-3_*	214	2226	47.18	959	30.97	7961	89.22	32768	181.02	2231	47.23	1392	37.31	616	24.82
*B-3_*	215	2138	46.24	982	31.34	7972	89.29	32444	180.12	2134	46.20	1457	38.17	557	23.60
*B-3_*	216	2159	46.47	1030	32.09	7869	88.71	32643	180.67	2148	46.35	1409	37.54	520	22.80
*B-3_*	217	2289	47.84	987	31.42	8000	89.44	32396	179.99	2120	46.04	1425	37.75	592	24.33
*B-3_*	218	2277	47.72	1029	32.08	7897	88.87	32607	180.57	2215	47.06	1347	36.70	527	22.96
*B-3_*	219	2176	46.65	1003	31.67	8065	89.81	32611	180.59	2146	46.32	1389	37.27	550	23.45
*B-3_*	220	2296	47.92	1050	32.40	8079	89.88	32295	179.71	2219	47.11	1358	36.85	571	23.90
*B-3_*	221	2176	46.65	1005	31.70	8046	89.70	32600	180.55	2234	47.27	1410	37.55	603	24.56
*B-3_*	222	2170	46.58	1049	32.39	7927	89.03	32528	180.36	2120	46.04	1419	37.67	621	24.92
*B-3_*	223	2200	46.90	968	31.11	8125	90.14	32490	180.25	2212	47.03	1458	38.18	578	24.04
*B-3_*	224	2251	47.44	1009	31.76	8094	89.97	32714	180.87	2092	45.74	1454	38.13	534	23.11
*B-3_*	225	2220	47.12	1030	32.09	7971	89.28	32408	180.02	2229	47.21	1427	37.78	587	24.23
*B-3_*	226	2243	47.36	1061	32.57	8104	90.02	32799	181.10	2198	46.88	1356	36.82	578	24.04
*B-3_*	227	2202	46.93	1027	32.05	8097	89.98	32402	180.01	2249	47.42	1460	38.21	574	23.96
*B-3_*	228	2250	47.43	1016	31.87	8129	90.16	32302	179.73	2201	46.91	1425	37.75	604	24.58
*B-3_*	229	2195	46.85	1015	31.86	8014	89.52	32436	180.10	2256	47.50	1443	37.99	580	24.08
*B-3_*	230	2239	47.32	951	30.84	8056	89.76	32454	180.15	2201	46.91	1466	38.29	547	23.39
*B-3_*	231	2280	47.75	958	30.95	8065	89.81	32277	179.66	2226	47.18	1475	38.41	586	24.21
*B-3_*	232	2156	46.43	1027	32.05	8126	90.14	32571	180.47	2078	45.59	1451	38.09	594	24.37
*B-3_*	233	2172	46.60	1027	32.05	8353	91.39	32330	179.81	2172	46.60	1500	38.73	599	24.47
*B-3_*	234	2169	46.57	973	31.19	7983	89.35	32450	180.14	2239	47.32	1450	38.08	609	24.68

EA4_4

*B-3_*	235	2227	47.19	1004	31.69	8022	89.57	32472	180.20	2149	46.36	1457	38.17	577	24.02
*B-3_*	236	2182	46.71	970	31.14	8181	90.45	32185	179.40	2265	47.59	1497	38.69	587	24.23
*B-3_*	237	2245	47.38	1042	32.28	8190	90.50	31988	178.85	2189	46.79	1478	38.44	561	23.69
*B-3_*	238	2257	47.51	1006	31.72	8156	90.31	32369	179.91	2111	45.95	1480	38.47	607	24.64
*B-3_*	239	2193	46.83	987	31.42	8505	92.22	31752	178.19	2169	46.57	1547	39.33	588	24.25
*B-3_*	240	2271	47.66	1050	32.40	8410	91.71	31320	176.97	2115	45.99	1512	38.88	604	24.58
*B-3_*	241	2238	47.31	1028	32.06	8450	91.92	31565	177.67	2193	46.83	1538	39.22	626	25.02
*B-3_*	242	2356	48.54	1041	32.26	8509	92.24	31747	178.18	2208	46.99	1593	39.91	613	24.76
*B-3_*	243	2348	48.46	1032	32.12	8791	93.76	31637	177.87	2222	47.14	1668	40.84	565	23.77
*B-3_*	244	2291	47.86	948	30.79	8511	92.26	31797	178.32	2232	47.24	1518	38.96	612	24.74
*B-3_*	245	2328	48.25	1027	32.05	8768	93.64	31558	177.65	2117	46.01	1641	40.51	608	24.66
*B-3_*	246	2208	46.99	1056	32.50	8609	92.78	31832	178.42	2165	46.53	1561	39.51	621	24.92
*B-3_*	247	2238	47.31	1060	32.56	8598	92.73	31974	178.81	2240	47.33	1551	39.38	602	24.54
*B-3_*	248	2276	47.71	987	31.42	8506	92.23	31954	178.76	2119	46.03	1565	39.56	601	24.52
*B-3_*	249	2204	46.95	984	31.37	8530	92.36	31937	178.71	2222	47.14	1526	39.06	631	25.12
*B-3_*	250	2278	47.73	983	31.35	8661	93.06	32197	179.44	2188	46.78	1480	38.47	581	24.10
*B-3_*	251	2218	47.10	1031	32.11	8448	91.91	31873	178.53	2191	46.81	1578	39.72	630	25.10
*B-3_*	252	2177	46.66	1006	31.72	8582	92.64	31826	178.40	2153	46.40	1565	39.56	604	24.58
*B-3_*	253	2207	46.98	1074	32.77	8495	92.17	31425	177.27	2128	46.13	1532	39.14	602	24.54
*B-3_*	254	2307	48.03	1038	32.22	8526	92.34	31697	178.04	2168	46.56	1540	39.24	586	24.21
*B-3_*	255	2209	47.00	1028	32.06	8382	91.55	31502	177.49	2153	46.40	1556	39.45	613	24.76
*B-3_*	256	2303	47.99	941	30.68	8379	91.54	31983	178.84	2152	46.39	1488	38.57	654	25.57
*B-3_*	257	2367	48.65	1038	32.22	8348	91.37	32109	179.19	2134	46.20	1577	39.71	611	24.72
*B-3_*	258	2295	47.91	1067	32.66	8464	92.00	32342	179.84	2115	45.99	1495	38.67	607	24.64
*B-3_*	259	2240	47.33	1047	32.36	8332	91.28	32136	179.27	2161	46.49	1511	38.87	604	24.58
*B-3_*	260	2183	46.72	1021	31.95	8296	91.08	32216	179.49	2130	46.15	1510	38.86	584	24.17
*B-3_*	261	2285	47.80	1051	32.42	8289	91.04	32315	179.76	2095	45.77	1484	38.52	608	24.66
*B-3_*	262	2268	47.62	1066	32.65	8206	90.59	31975	178.82	2137	46.23	1516	38.94	602	24.54
*B-3_*	263	2243	47.36	1012	31.81	8170	90.39	32176	179.38	2126	46.11	1476	38.42	571	23.90
*B-3_*	264	2214	47.05	1024	32.00	8079	89.88	32427	180.07	2197	46.87	1460	38.21	603	24.56
*B-3_*	265	2255	47.49	1057	32.51	8235	90.75	32232	179.53	2155	46.42	1414	37.60	593	24.35
*B-3_*	266	2195	46.85	979	31.29	8270	90.94	32192	179.42	2273	47.68	1526	39.06	578	24.04
*B-3_*	267	2263	47.57	1000	31.62	8090	89.94	31897	178.60	2147	46.34	1423	37.72	583	24.15
*B-3_*	268	2285	47.80	1002	31.65	8332	91.28	31902	178.61	2198	46.88	1509	38.85	572	23.92
*B-3_*	269	2263	47.57	1035	32.17	8221	90.67	31793	178.31	2101	45.84	1499	38.72	545	23.35
*B-3_*	270	2221	47.13	982	31.34	8466	92.01	31984	178.84	2088	45.69	1422	37.71	610	24.70
*B-3_*	271	2232	47.24	1002	31.65	8406	91.68	31646	177.89	2168	46.56	1427	37.78	577	24.02
*B-3_*	272	2296	47.92	1067	32.66	8649	93.00	31662	177.94	2189	46.79	1493	38.64	637	25.24
*B-3_*	273	2328	48.25	1012	31.81	8850	94.07	31185	176.59	2127	46.12	1599	39.99	620	24.90
*B-3_*	274	2334	48.31	1092	33.05	9065	95.21	31129	176.43	2225	47.17	1614	40.17	604	24.58
*B-3_*	275	2376	48.74	1041	32.26	9040	95.08	31279	176.86	2259	47.53	1628	40.35	601	24.52
*B-3_*	276	2337	48.34	982	31.34	9054	95.15	31284	176.87	2268	47.62	1617	40.21	617	24.84
*B-3_*	277	2242	47.35	1018	31.91	8711	93.33	31509	177.51	2225	47.17	1463	38.25	664	25.77
*B-3_*	278	2290	47.85	1048	32.37	8689	93.21	31370	177.12	2235	47.28	1466	38.29	574	23.96
*B-3_*	279	2334	48.31	978	31.27	8266	90.92	32221	179.50	2216	47.07	1435	37.88	580	24.08
*B-3_*	280	2238	47.31	975	31.22	8226	90.70	32093	179.15	2203	46.94	1381	37.16	610	24.70
*B-3_*	281	2232	47.24	978	31.27	8197	90.54	32277	179.66	2192	46.82	1384	37.20	572	23.92
*B-3_*	282	2222	47.14	953	30.87	8278	90.98	31767	178.23	2221	47.13	1360	36.88	591	24.31
*B-3_*	283	2206	46.97	981	31.32	8240	90.77	32152	179.31	2325	48.22	1390	37.28	547	23.39
*B-3_*	284	2319	48.16	959	30.97	8278	90.98	32109	179.19	2356	48.54	1316	36.28	602	24.54
*B-3_*	285	2359	48.57	981	31.32	8401	91.66	32018	178.94	2223	47.15	1403	37.46	584	24.17
*B-3_*	286	2278	47.73	1044	32.31	8289	91.04	32182	179.39	2313	48.09	1420	37.68	611	24.72
*B-3_*	287	2310	48.06	1004	31.69	8392	91.61	31812	178.36	2270	47.64	1463	38.25	658	25.65
*B-3_*	288	2367	48.65	998	31.59	8373	91.50	32050	179.03	2272	47.67	1419	37.67	604	24.58
*B-3_*	289	2299	47.95	1053	32.45	8311	91.16	32188	179.41	2229	47.21	1369	37.00	607	24.64
*B-3_*	290	2272	47.67	1074	32.77	8142	90.23	32386	179.96	2255	47.49	1500	38.73	559	23.64
*B-3_*	291	2281	47.76	1065	32.63	7965	89.25	32495	180.26	2252	47.46	1403	37.46	582	24.12
*B-3_*	292	2261	47.55	999	31.61	7903	88.90	32518	180.33	2250	47.43	1311	36.21	643	25.36
*B-3_*	293	2330	48.27	1077	32.82	7985	89.36	32251	179.59	2280	47.75	1348	36.72	560	23.66
*B-3_*	294	2292	47.87	980	31.30	7853	88.62	32412	180.03	2268	47.62	1350	36.74	615	24.80
*B-3_*	295	2216	47.07	1054	32.47	7790	88.26	32404	180.01	2223	47.15	1422	37.71	610	24.70
*B-3_*	296	2231	47.23	1053	32.45	7734	87.94	32863	181.28	2274	47.69	1310	36.19	560	23.66
*B-3_*	297	2251	47.44	1033	32.14	7560	86.95	32729	180.91	2248	47.41	1324	36.39	654	25.57
*B-3_*	298	2208	46.99	1029	32.08	7764	88.11	32332	179.81	2221	47.13	1353	36.78	594	24.37
*B-3_*	299	2275	47.70	1085	32.94	7585	87.09	32655	180.71	2237	47.30	1352	36.77	637	25.24
*B-3_*	300	2252	47.46	987	31.42	7766	88.12	32449	180.14	2246	47.39	1324	36.39	607	24.64
*B-3_*	301	2321	48.18	1031	32.11	7940	89.11	32574	180.48	2330	48.27	1407	37.51	589	24.27
*B-3_*	302	2362	48.60	1057	32.51	8152	90.29	32272	179.64	2333	48.30	1454	38.13	518	22.76
*B-3_*	303	2403	49.02	1062	32.59	8157	90.32	31648	177.90	2266	47.60	1365	36.95	557	23.60
*B-3_*	304	2384	48.83	1092	33.05	8336	91.30	31653	177.91	2360	48.58	1446	38.03	592	24.33
*B-3_*	305	2406	49.05	1115	33.39	8233	90.74	31915	178.65	2334	48.31	1458	38.18	625	25.00
*B-3_*	306	2353	48.51	1059	32.54	8163	90.35	31934	178.70	2331	48.28	1458	38.18	595	24.39
*B-3_*	307	2294	47.90	1057	32.51	8121	90.12	31913	178.64	2261	47.55	1428	37.79	603	24.56
*B-3_*	308	2266	47.60	1044	32.31	7737	87.96	32539	180.39	2274	47.69	1304	36.11	568	23.83
*B-3_*	309	2373	48.71	959	30.97	7432	86.21	32989	181.63	2142	46.28	1285	35.85	585	24.19
*B-3_*	310	2188	46.78	990	31.46	7012	83.74	33314	182.52	2274	47.69	1321	36.35	570	23.87
*B-3_*	311	2169	46.57	961	31.00	6609	81.30	33969	184.31	2137	46.23	1249	35.34	580	24.08
*B-3_*	312	1981	44.51	960	30.98	5707	75.54	34715	186.32	2163	46.51	1094	33.08	543	23.30
*B-3_*	313	1902	43.61	963	31.03	5568	74.62	35560	188.57	2049	45.27	1075	32.79	526	22.93
*B-3_*	314	1986	44.56	973	31.19	5428	73.67	35354	188.03	2100	45.83	1044	32.31	507	22.52
*B-3_*	315	1917	43.78	944	30.72	5593	74.79	35431	188.23	1976	44.45	1109	33.30	482	21.95
*B-3_*	316	1963	44.31	932	30.53	5686	75.41	34964	186.99	2063	45.42	1100	33.17	503	22.43
*B-3_*	317	1951	44.17	987	31.42	5847	76.47	34954	186.96	2021	44.96	1096	33.11	546	23.37
*B-3_*	318	2017	44.91	958	30.95	6074	77.94	34700	186.28	2136	46.22	1144	33.82	578	24.04
*B-3_*	319	1999	44.71	993	31.51	6279	79.24	34581	185.96	2091	45.73	1224	34.99	555	23.56
*B-3_*	320	2174	46.63	1011	31.80	6266	79.16	34617	186.06	2123	46.08	1184	34.41	576	24.00
*B-3_*	321	2147	46.34	988	31.43	6524	80.77	33782	183.80	2209	47.00	1237	35.17	551	23.47
*B-3_*	322	2135	46.21	992	31.50	6671	81.68	33829	183.93	2141	46.27	1214	34.84	582	24.12
*B-3_*	323	2061	45.40	994	31.53	6869	82.88	33747	183.70	2242	47.35	1229	35.06	549	23.43
*B-3_*	324	2151	46.38	1016	31.87	6923	83.20	33357	182.64	2161	46.49	1263	35.54	608	24.66
*B-3_*	325	2191	46.81	1047	32.36	7045	83.93	33529	183.11	2227	47.19	1278	35.75	604	24.58
*B-3_*	326	2257	47.51	1043	32.30	7082	84.15	33297	182.47	2217	47.09	1307	36.15	619	24.88
*B-3_*	327	2160	46.48	1012	31.81	7112	84.33	33257	182.37	2181	46.70	1341	36.62	573	23.94

EA4_5

*B-3_*	328	2219	47.11	1092	33.05	6974	83.51	33220	182.26	2216	47.07	1379	37.13	656	25.61
*B-3_*	329	2211	47.02	1068	32.68	7282	85.33	32997	181.65	2260	47.54	1336	36.55	617	24.84
*B-3_*	330	2278	47.73	1104	33.23	7411	86.09	32886	181.34	2191	46.81	1373	37.05	621	24.92
*B-3_*	331	2291	47.86	1052	32.43	7356	85.77	32916	181.43	2269	47.63	1398	37.39	568	23.83
*B-3_*	332	2163	46.51	1043	32.30	7311	85.50	32774	181.04	2227	47.19	1322	36.36	637	25.24
*B-3_*	333	2269	47.63	1036	32.19	7539	86.83	32535	180.37	2162	46.50	1340	36.61	595	24.39
*B-3_*	334	2244	47.37	1101	33.18	7586	87.10	32111	179.20	2256	47.50	1378	37.12	585	24.19
*B-3_*	335	2224	47.16	1068	32.68	7504	86.63	32546	180.41	2249	47.42	1412	37.58	612	24.74
*B-3_*	336	2272	47.67	1162	34.09	7731	87.93	32316	179.77	2245	47.38	1416	37.63	651	25.51
*B-3_*	337	2367	48.65	1089	33.00	7768	88.14	32034	178.98	2204	46.95	1423	37.72	658	25.65
*B-3_*	338	2261	47.55	1063	32.60	7787	88.24	32238	179.55	2296	47.92	1344	36.66	698	26.42
*B-3_*	339	2218	47.10	1074	32.77	7735	87.95	31945	178.73	2262	47.56	1399	37.40	673	25.94
*B-3_*	340	2289	47.84	1126	33.56	7805	88.35	32126	179.24	2174	46.63	1409	37.54	652	25.53
*B-3_*	341	2283	47.78	1103	33.21	7790	88.26	32724	180.90	2307	48.03	1365	36.95	611	24.72
*B-3_*	342	2268	47.62	1109	33.30	7716	87.84	32440	180.11	2269	47.63	1359	36.86	637	25.24
*B-3_*	343	2185	46.74	1199	34.63	7729	87.91	32357	179.88	2362	48.60	1358	36.85	679	26.06
*B-3_*	344	2191	46.81	1107	33.27	7619	87.29	32639	180.66	2217	47.09	1365	36.95	621	24.92
*B-3_*	345	2253	47.47	1092	33.05	7860	88.66	32466	180.18	2240	47.33	1365	36.95	601	24.52
*B-3_*	346	2316	48.12	1068	32.68	8024	89.58	32128	179.24	2347	48.45	1396	37.36	642	25.34
*B-3_*	347	2361	48.59	1149	33.90	8111	90.06	32000	178.89	2435	49.35	1334	36.52	607	24.64
*B-3_*	348	2303	47.99	1030	32.09	7963	89.24	31910	178.63	2294	47.90	1423	37.72	676	26.00
*B-3_*	349	2282	47.77	1075	32.79	8327	91.25	31478	177.42	2235	47.28	1365	36.95	685	26.17
*B-3_*	350	2323	48.20	1050	32.40	8326	91.25	31767	178.23	2355	48.53	1385	37.22	682	26.12
*B-3_*	351	2267	47.61	1071	32.73	8260	90.88	31728	178.12	2407	49.06	1443	37.99	647	25.44
*B-3_*	352	2243	47.36	1091	33.03	8122	90.12	31386	177.16	2342	48.39	1403	37.46	663	25.75
*B-3_*	353	2343	48.40	1035	32.17	8234	90.74	31516	177.53	2298	47.94	1296	36.00	690	26.27
*B-3_*	354	2307	48.03	1065	32.63	8280	90.99	31779	178.27	2301	47.97	1229	35.06	625	25.00
*B-3_*	355	2339	48.36	1089	33.00	8186	90.48	31812	178.36	2292	47.87	1260	35.50	675	25.98
*B-3_*	356	2288	47.83	1081	32.88	8119	90.11	31999	178.88	2267	47.61	1257	35.45	638	25.26
*B-3_*	357	2314	48.10	1068	32.68	8249	90.82	31971	178.80	2310	48.06	1336	36.55	617	24.84
*B-3_*	358	2247	47.40	1085	32.94	8180	90.44	31767	178.23	2383	48.82	1304	36.11	589	24.27
*B-3_*	359	2363	48.61	1030	32.09	8170	90.39	31922	178.67	2358	48.56	1274	35.69	619	24.88
*B-3_*	360	2251	47.44	1028	32.06	8246	90.81	31655	177.92	2385	48.84	1226	35.01	614	24.78
*B-3_*	361	2335	48.32	976	31.24	8020	89.55	31887	178.57	2289	47.84	1147	33.87	623	24.96
*B-3_*	362	2311	48.07	988	31.43	8298	91.09	31949	178.74	2313	48.09	1210	34.79	669	25.87
*B-3_*	363	2314	48.10	980	31.30	8149	90.27	32146	179.29	2385	48.84	1225	35.00	650	25.50
*B-3_*	364	2366	48.64	1034	32.16	8081	89.89	31871	178.52	2269	47.63	1181	34.37	570	23.87
*B-3_*	365	2308	48.04	1094	33.08	8268	90.93	31693	178.03	2334	48.31	1243	35.26	610	24.70
*B-3_*	366	2330	48.27	1053	32.45	8380	91.54	31795	178.31	2279	47.74	1224	34.99	619	24.88
*B-3_*	367	2388	48.87	1040	32.25	8460	91.98	31384	177.16	2369	48.67	1319	36.32	646	25.42
*B-3_*	368	2288	47.83	1040	32.25	8479	92.08	31255	176.79	2307	48.03	1310	36.19	659	25.67
*B-3_*	369	2390	48.89	1007	31.73	8612	92.80	31295	176.90	2296	47.92	1228	35.04	651	25.51
*B-3_*	370	2431	49.31	1064	32.62	8598	92.73	31129	176.43	2359	48.57	1292	35.94	652	25.53
*B-3_*	371	2449	49.49	1072	32.74	8848	94.06	31138	176.46	2379	48.77	1286	35.86	661	25.71
*B-3_*	372	2391	48.90	1083	32.91	8642	92.96	31321	176.98	2401	49.00	1305	36.12	666	25.81
*B-3_*	373	2419	49.18	1064	32.62	8779	93.70	31096	176.34	2454	49.54	1309	36.18	632	25.14
*B-3_*	374	2378	48.76	1025	32.02	8788	93.74	31135	176.45	2242	47.35	1309	36.18	654	25.57
*B-3_*	375	2278	47.73	1058	32.53	8836	94.00	31139	176.46	2410	49.09	1314	36.25	678	26.04
*B-3_*	376	2404	49.03	1039	32.23	8852	94.09	30834	175.60	2346	48.44	1280	35.78	645	25.40
*B-3_*	377	2378	48.76	1134	33.67	8857	94.11	31183	176.59	2369	48.67	1300	36.06	661	25.71
*B-3_*	378	2356	48.54	1083	32.91	8772	93.66	30970	175.98	2379	48.77	1303	36.10	665	25.79
*B-3_*	379	2398	48.97	1125	33.54	8594	92.70	31194	176.62	2507	50.07	1209	34.77	732	27.06
*B-3_*	380	2481	49.81	1007	31.73	8690	93.22	30871	175.70	2424	49.23	1229	35.06	624	24.98
*B-3_*	381	2337	48.34	1074	32.77	8525	92.33	31297	176.91	2431	49.31	1255	35.43	672	25.92
*B-3_*	382	2390	48.89	1097	33.12	8397	91.64	31289	176.89	2427	49.26	1253	35.40	609	24.68
*B-3_*	383	2363	48.61	1098	33.14	8436	91.85	31167	176.54	2366	48.64	1210	34.79	628	25.06
*B-3_*	384	2464	49.64	1040	32.25	8308	91.15	31463	177.38	2377	48.75	1221	34.94	621	24.92
*B-3_*	385	2278	47.73	1031	32.11	8366	91.47	31629	177.85	2442	49.42	1161	34.07	594	24.37
*B-3_*	386	2282	47.77	1033	32.14	8310	91.16	31739	178.15	2334	48.31	1162	34.09	598	24.45
*B-3_*	387	2396	48.95	1054	32.47	8210	90.61	31672	177.97	2419	49.18	1148	33.88	607	24.64
*B-3_*	388	2291	47.86	1016	31.87	7892	88.84	31888	178.57	2521	50.21	1124	33.53	605	24.60
*B-3_*	389	2247	47.40	1011	31.80	8113	90.07	31535	177.58	2307	48.03	1049	32.39	573	23.94
*B-3_*	390	2345	48.43	1057	32.51	8108	90.04	31821	178.38	2358	48.56	1096	33.11	587	24.23
*B-3_*	391	2314	48.10	983	31.35	8071	89.84	31947	178.74	2379	48.77	1133	33.66	619	24.88
*B-3_*	392	2254	47.48	1008	31.75	8000	89.44	31831	178.41	2286	47.81	1058	32.53	584	24.17
*B-3_*	393	2265	47.59	917	30.28	8082	89.90	31937	178.71	2359	48.57	1093	33.06	580	24.08
*B-3_*	394	2279	47.74	1004	31.69	7917	88.98	31961	178.78	2346	48.44	1072	32.74	609	24.68
*B-3_*	395	2288	47.83	979	31.29	7988	89.38	31988	178.85	2415	49.14	1137	33.72	605	24.60
*B-3_*	396	2349	48.47	978	31.27	7827	88.47	31866	178.51	2338	48.35	1036	32.19	565	23.77
*B-3_*	397	2350	48.48	975	31.22	7908	88.93	32000	178.89	2347	48.45	1095	33.09	608	24.66
*B-3_*	398	2233	47.25	935	30.58	8064	89.80	31825	178.40	2330	48.27	1103	33.21	617	24.84
*B-3_*	399	2216	47.07	991	31.48	8040	89.67	32057	179.04	2347	48.45	1094	33.08	614	24.78
*B-3_*	400	2258	47.52	989	31.45	7979	89.33	31432	177.29	2323	48.20	1071	32.73	595	24.39
*B-3_*	401	2290	47.85	986	31.40	7987	89.37	31985	178.84	2358	48.56	1079	32.85	589	24.27
*B-3_*	402	2319	48.16	1022	31.97	7948	89.15	32073	179.09	2329	48.26	1075	32.79	591	24.31
*B-3_*	403	2282	47.77	981	31.32	7878	88.76	31740	178.16	2322	48.19	1138	33.73	608	24.66
*B-3_*	404	2315	48.11	958	30.95	7883	88.79	32285	179.68	2294	47.90	1095	33.09	578	24.04
*B-3_*	405	2302	47.98	961	31.00	7845	88.57	31844	178.45	2408	49.07	1074	32.77	551	23.47
*B-3_*	406	2264	47.58	914	30.23	7793	88.28	32286	179.68	2273	47.68	1069	32.70	538	23.19
*B-3_*	407	2284	47.79	965	31.06	7606	87.21	32003	178.89	2368	48.66	1086	32.95	589	24.27
*B-3_*	408	2239	47.32	976	31.24	7628	87.34	32296	179.71	2367	48.65	1101	33.18	568	23.83
*B-3_*	409	2204	46.95	986	31.40	7705	87.78	32034	178.98	2373	48.71	1107	33.27	613	24.76
*B-3_*	410	2285	47.80	980	31.30	7692	87.70	31820	178.38	2267	47.61	1110	33.32	566	23.79
*B-3_*	411	2283	47.78	952	30.85	7852	88.61	32553	180.42	2302	47.98	1096	33.11	587	24.23
*B-3_*	412	2305	48.01	939	30.64	7841	88.55	32424	180.07	2362	48.60	1104	33.23	606	24.62
*B-3_*	413	2372	48.70	977	31.26	7887	88.81	31805	178.34	2325	48.22	1102	33.20	590	24.29
*B-3_*	414	2336	48.33	966	31.08	7774	88.17	32182	179.39	2413	49.12	1129	33.60	606	24.62
*B-3_*	415	2275	47.70	984	31.37	7883	88.79	31694	178.03	2283	47.78	1160	34.06	580	24.08
*B-3_*	416	2382	48.81	930	30.50	8007	89.48	31480	177.43	2326	48.23	1124	33.53	601	24.52
*B-3_*	417	2299	47.95	942	30.69	7994	89.41	31922	178.67	2228	47.20	1164	34.12	633	25.16
*B-3_*	418	2343	48.40	962	31.02	8120	90.11	31726	178.12	2325	48.22	1142	33.79	586	24.21
*B-3_*	419	2338	48.35	1037	32.20	8979	94.76	30146	173.63	2332	48.29	1243	35.26	561	23.69
*B-3_*	420	2331	48.28	1063	32.60	9423	97.07	29996	173.19	2258	47.52	1208	34.76	630	25.10

EA4_6

*B-3_*	421	2392	48.91	1062	32.59	8093	89.96	31248	176.77	2353	48.51	1259	35.48	584	24.17
*B-3_*	422	2395	48.94	1081	32.88	8120	90.11	31718	178.10	2358	48.56	1260	35.50	625	25.00
*B-3_*	423	2344	48.41	1015	31.86	7938	89.10	31519	177.54	2292	47.87	1276	35.72	608	24.66
*B-3_*	424	2362	48.60	1018	31.91	7870	88.71	31669	177.96	2293	47.89	1286	35.86	637	25.24
*B-3_*	425	2357	48.55	1023	31.98	7948	89.15	31588	177.73	2278	47.73	1295	35.99	605	24.60
*B-3_*	426	2300	47.96	1031	32.11	7640	87.41	31783	178.28	2277	47.72	1286	35.86	612	24.74
*B-3_*	427	2297	47.93	996	31.56	7532	86.79	32015	178.93	2328	48.25	1202	34.67	597	24.43
*B-3_*	428	2146	46.32	1036	32.19	7325	85.59	32335	179.82	2229	47.21	1214	34.84	596	24.41
*B-3_*	429	2252	47.46	1045	32.33	7423	86.16	32402	180.01	2177	46.66	1147	33.87	592	24.33
*B-3_*	430	2305	48.01	951	30.84	7282	85.33	32577	180.49	2236	47.29	1165	34.13	582	24.12
*B-3_*	431	2205	46.96	1035	32.17	7189	84.79	32427	180.07	2224	47.16	1147	33.87	621	24.92
*B-3_*	432	2174	46.63	986	31.40	7198	84.84	32175	179.37	2257	47.51	1181	34.37	600	24.49
*B-3_*	433	2308	48.04	1004	31.69	7365	85.82	31899	178.60	2252	47.46	1254	35.41	598	24.45
*B-3_*	434	2239	47.32	1046	32.34	7337	85.66	32272	179.64	2279	47.74	1260	35.50	569	23.85
*B-3_*	435	2286	47.81	1007	31.73	7432	86.21	32248	179.58	2225	47.17	1210	34.79	548	23.41
*B-3_*	436	2257	47.51	1002	31.65	7751	88.04	32173	179.37	2257	47.51	1322	36.36	623	24.96
*B-3_*	437	2279	47.74	967	31.10	7699	87.74	32119	179.22	2233	47.25	1314	36.25	603	24.56
*B-3_*	438	2295	47.91	1051	32.42	7819	88.43	31816	178.37	2195	46.85	1352	36.77	624	24.98
*B-3_*	439	2427	49.26	1063	32.60	7878	88.76	31593	177.74	2237	47.30	1318	36.30	599	24.47
*B-3_*	440	2347	48.45	1030	32.09	7633	87.37	31405	177.21	2305	48.01	1334	36.52	583	24.15
*B-3_*	441	2356	48.54	1022	31.97	7870	88.71	31860	178.49	2278	47.73	1338	36.58	599	24.47
*B-3_*	442	2349	48.47	1015	31.86	7889	88.82	31713	178.08	2306	48.02	1376	37.09	627	25.04
*B-3_*	443	2346	48.44	1048	32.37	7702	87.76	31472	177.40	2265	47.59	1385	37.22	663	25.75
*B-3_*	444	2241	47.34	1082	32.89	7882	88.78	31566	177.67	2309	48.05	1337	36.57	578	24.04
*B-3_*	445	2352	48.50	1050	32.40	7886	88.80	31438	177.31	2372	48.70	1391	37.30	627	25.04
*B-3_*	446	2182	46.71	1038	32.22	7678	87.62	31587	177.73	2275	47.70	1376	37.09	604	24.58
*B-3_*	447	2300	47.96	1061	32.57	7770	88.15	31822	178.39	2286	47.81	1336	36.55	592	24.33
*B-3_*	448	2339	48.36	1017	31.89	7641	87.41	32038	178.99	2313	48.09	1350	36.74	609	24.68
*B-3_*	449	2278	47.73	1079	32.85	7492	86.56	32008	178.91	2275	47.70	1316	36.28	619	24.88
*B-3_*	450	2339	48.36	1032	32.12	7662	87.53	32088	179.13	2292	47.87	1337	36.57	626	25.02
*B-3_*	451	2150	46.37	1066	32.65	7481	86.49	32231	179.53	2176	46.65	1291	35.93	629	25.08
*B-3_*	452	2275	47.70	989	31.45	7575	87.03	32278	179.66	2241	47.34	1342	36.63	561	23.69
*B-3_*	453	2303	47.99	995	31.54	7505	86.63	32307	179.74	2290	47.85	1338	36.58	592	24.33
*B-3_*	454	2258	47.52	975	31.22	7504	86.63	32105	179.18	2188	46.78	1282	35.81	591	24.31
*B-3_*	455	2340	48.37	1064	32.62	7600	87.18	31933	178.70	2222	47.14	1395	37.35	580	24.08
*B-3_*	456	2308	48.04	1110	33.32	7812	88.39	31817	178.37	2311	48.07	1381	37.16	615	24.80
*B-3_*	457	2340	48.37	1046	32.34	7892	88.84	31216	176.68	2298	47.94	1385	37.22	588	24.25
*B-3_*	458	2307	48.03	1044	32.31	8075	89.86	31227	176.71	2191	46.81	1412	37.58	583	24.15
*B-3_*	459	2375	48.73	1081	32.88	8135	90.19	31630	177.85	2292	47.87	1407	37.51	603	24.56
*B-3_*	460	2351	48.49	1084	32.92	8177	90.43	31446	177.33	2251	47.44	1371	37.03	627	25.04
*B-3_*	461	2380	48.79	1070	32.71	8082	89.90	31306	176.94	2206	46.97	1381	37.16	600	24.49
*B-3_*	462	2362	48.60	1047	32.36	7939	89.10	31715	178.09	2174	46.63	1437	37.91	595	24.39
*B-3_*	463	2354	48.52	1027	32.05	7998	89.43	31753	178.19	2290	47.85	1405	37.48	603	24.56
*B-3_*	464	2278	47.73	1033	32.14	7954	89.19	31834	178.42	2165	46.53	1436	37.89	597	24.43
*B-3_*	465	2340	48.37	1066	32.65	8059	89.77	31821	178.38	2241	47.34	1409	37.54	626	25.02
*B-3_*	466	2193	46.83	1036	32.19	7796	88.29	32061	179.06	2178	46.67	1393	37.32	579	24.06
*B-3_*	467	2203	46.94	1033	32.14	7794	88.28	32313	179.76	2217	47.09	1383	37.19	593	24.35
*B-3_*	468	2323	48.20	996	31.56	7678	87.62	31921	178.66	2270	47.64	1342	36.63	574	23.96
*B-3_*	469	2243	47.36	994	31.53	7669	87.57	32251	179.59	2195	46.85	1401	37.43	600	24.49
*B-3_*	470	2259	47.53	1008	31.75	7706	87.78	32330	179.81	2239	47.32	1410	37.55	613	24.76
*B-3_*	471	2248	47.41	1012	31.81	7669	87.57	32255	179.60	2208	46.99	1319	36.32	628	25.06
*B-3_*	472	2196	46.86	1011	31.80	7580	87.06	32215	179.49	2242	47.35	1312	36.22	592	24.33
*B-3_*	473	2245	47.38	979	31.29	7713	87.82	31871	178.52	2221	47.13	1457	38.17	590	24.29
*B-3_*	474	2188	46.78	994	31.53	7657	87.50	32277	179.66	2183	46.72	1314	36.25	654	25.57
*B-3_*	475	2263	47.57	1008	31.75	7600	87.18	32169	179.36	2221	47.13	1388	37.26	598	24.45
*B-3_*	476	2227	47.19	979	31.29	7554	86.91	32472	180.20	2219	47.11	1347	36.70	619	24.88
*B-3_*	477	2249	47.42	991	31.48	7577	87.05	32309	179.75	2134	46.20	1417	37.64	597	24.43
*B-3_*	478	2213	47.04	975	31.22	7624	87.32	32326	179.79	2286	47.81	1411	37.56	588	24.25
*B-3_*	479	2207	46.98	989	31.45	7764	88.11	32220	179.50	2162	46.50	1391	37.30	632	25.14
*B-3_*	480	2206	46.97	990	31.46	7548	86.88	32319	179.77	2220	47.12	1388	37.26	608	24.66
*B-3_*	481	2175	46.64	1008	31.75	7683	87.65	32304	179.73	2224	47.16	1414	37.60	583	24.15
*B-3_*	482	2281	47.76	996	31.56	7673	87.60	32214	179.48	2168	46.56	1400	37.42	615	24.80
*B-3_*	483	2106	45.89	994	31.53	7706	87.78	32214	179.48	2184	46.73	1415	37.62	608	24.66
*B-3_*	484	2242	47.35	980	31.30	7780	88.20	32209	179.47	2174	46.63	1399	37.40	636	25.22
*B-3_*	485	2311	48.07	953	30.87	7838	88.53	31718	178.10	2193	46.83	1459	38.20	619	24.88
*B-3_*	486	2262	47.56	1038	32.22	7951	89.17	31686	178.01	2186	46.75	1475	38.41	590	24.29
*B-3_*	487	2292	47.87	1003	31.67	7930	89.05	31589	177.73	2142	46.28	1504	38.78	579	24.06
*B-3_*	488	2200	46.90	996	31.56	8156	90.31	31508	177.50	2222	47.14	1477	38.43	593	24.35
*B-3_*	489	2230	47.22	1017	31.89	8280	90.99	31579	177.70	2233	47.25	1487	38.56	594	24.37
*B-3_*	490	2333	48.30	1023	31.98	8374	91.51	31414	177.24	2241	47.34	1433	37.85	626	25.02
*B-3_*	491	2243	47.36	1071	32.73	8369	91.48	31350	177.06	2289	47.84	1492	38.63	572	23.92
*B-3_*	492	2345	48.43	1030	32.09	8192	90.51	31569	177.68	2201	46.91	1525	39.05	563	23.73
*B-3_*	493	2326	48.23	989	31.45	8271	90.95	31512	177.52	2181	46.70	1505	38.79	603	24.56
*B-3_*	494	2405	49.04	1010	31.78	8327	91.25	31588	177.73	2230	47.22	1454	38.13	594	24.37
*B-3_*	495	2246	47.39	985	31.38	8568	92.56	31496	177.47	2214	47.05	1517	38.95	566	23.79
*B-3_*	496	2333	48.30	1010	31.78	8311	91.16	31383	177.15	2179	46.68	1438	37.92	604	24.58
*B-3_*	497	2350	48.48	1035	32.17	8328	91.26	31109	176.38	2179	46.68	1473	38.38	596	24.41
*B-3_*	498	2258	47.52	1038	32.22	8442	91.88	31333	177.01	2265	47.59	1485	38.54	584	24.17
*B-3_*	499	2238	47.31	1016	31.87	8399	91.65	31619	177.82	2261	47.55	1542	39.27	622	24.94
*B-3_*	500	2339	48.36	1039	32.23	8615	92.82	31352	177.06	2132	46.17	1480	38.47	607	24.64
*B-3_*	501	2244	47.37	939	30.64	8559	92.51	31355	177.07	2245	47.38	1464	38.26	597	24.43
*B-3_*	502	2215	47.06	977	31.26	8390	91.60	31321	176.98	2221	47.13	1492	38.63	555	23.56
*B-3_*	503	2245	47.38	956	30.92	8313	91.18	31524	177.55	2192	46.82	1500	38.73	632	25.14
*B-3_*	504	2296	47.92	1044	32.31	8374	91.51	31405	177.21	2125	46.10	1504	38.78	602	24.54
*B-3_*	505	2317	48.14	952	30.85	8321	91.22	31568	177.67	2108	45.91	1412	37.58	573	23.94
*B-3_*	506	2226	47.18	1040	32.25	8447	91.91	30884	175.74	2174	46.63	1556	39.45	564	23.75
*B-3_*	507	2261	47.55	1028	32.06	8502	92.21	31316	176.96	2167	46.55	1494	38.65	600	24.49
*B-3_*	508	2369	48.67	1040	32.25	8290	91.05	31555	177.64	2111	45.95	1461	38.22	611	24.72
*B-3_*	509	2270	47.64	1013	31.83	8573	92.59	31440	177.31	2118	46.02	1534	39.17	601	24.52
*B-3_*	510	2279	47.74	1041	32.26	8442	91.88	31378	177.14	2161	46.49	1539	39.23	592	24.33
*B-3_*	511	2290	47.85	988	31.43	8419	91.76	31116	176.40	2092	45.74	1475	38.41	581	24.10
*B-3_*	512	2272	47.67	1008	31.75	8619	92.84	31290	176.89	2171	46.59	1491	38.61	634	25.18
*B-3_*	513	2281	47.76	1014	31.84	8614	92.81	31577	177.70	2216	47.07	1455	38.14	546	23.37

EA4_7

B-3_	514	2234	47.27	1016	31.87	8281	91.00	31482	177.43	2128	46.13	1463	38.25	606	24.62
B-3_	515	2201	46.91	1022	31.97	8460	91.98	31164	176.53	2190	46.80	1503	38.77	619	24.88
B-3_	516	2364	48.62	1050	32.40	8510	92.25	31183	176.59	2193	46.83	1474	38.39	587	24.23
B-3_	517	2296	47.92	1030	32.09	8633	92.91	31301	176.92	2199	46.89	1450	38.08	576	24.00
B-3_	518	2176	46.65	1013	31.83	8511	92.26	31001	176.07	2193	46.83	1473	38.38	626	25.02
B-3_	519	2299	47.95	980	31.30	8746	93.52	31247	176.77	2193	46.83	1400	37.42	590	24.29
B-3_	520	2227	47.19	1050	32.40	8386	91.58	31581	177.71	2172	46.60	1459	38.20	580	24.08
B-3_	521	2245	47.38	981	31.32	8402	91.66	31660	177.93	2115	45.99	1425	37.75	596	24.41
B-3_	522	2235	47.28	1036	32.19	8439	91.86	31364	177.10	2201	46.91	1404	37.47	588	24.25
B-3_	523	2255	47.49	995	31.54	8233	90.74	31566	177.67	2129	46.14	1452	38.11	610	24.70
B-3_	524	2222	47.14	1002	31.65	8229	90.71	31654	177.92	2136	46.22	1508	38.83	591	24.31
B-3_	525	2211	47.02	977	31.26	8298	91.09	31319	176.97	2178	46.67	1476	38.42	583	24.15
B-3_	526	2196	46.86	1034	32.16	8277	90.98	31541	177.60	2177	46.66	1378	37.12	600	24.49
B-3_	527	2170	46.58	1038	32.22	8172	90.40	31673	177.97	2188	46.78	1452	38.11	602	24.54
B-3_	528	2251	47.44	1052	32.43	8236	90.75	31573	177.69	2132	46.17	1515	38.92	607	24.64
B-3_	529	2161	46.49	963	31.03	8235	90.75	31564	177.66	2151	46.38	1476	38.42	614	24.78
B-3_	530	2187	46.77	1012	31.81	8523	92.32	31642	177.88	2050	45.28	1392	37.31	541	23.26
B-3_	531	2239	47.32	975	31.22	8412	91.72	31218	176.69	2119	46.03	1482	38.50	587	24.23
B-3_	532	2318	48.15	995	31.54	8154	90.30	31765	178.23	2124	46.09	1406	37.50	609	24.68
B-3_	533	2114	45.98	1030	32.09	8425	91.79	31214	176.67	2120	46.04	1508	38.83	587	24.23
B-3_	534	2126	46.11	1046	32.34	8321	91.22	31322	176.98	2115	45.99	1414	37.60	575	23.98
B-3_	535	2216	47.07	1029	32.08	8371	91.49	31358	177.08	2101	45.84	1535	39.18	591	24.31
B-3_	536	2321	48.18	965	31.06	8363	91.45	31455	177.36	2153	46.40	1523	39.03	615	24.80
B-3_	537	2333	48.30	982	31.34	8283	91.01	31345	177.05	2148	46.35	1518	38.96	598	24.45
B-3_	538	2264	47.58	1073	32.76	8159	90.33	31305	176.93	2118	46.02	1474	38.39	627	25.04
B-3_	539	2182	46.71	986	31.40	8380	91.54	31320	176.97	2153	46.40	1476	38.42	615	24.80
B-3_	540	2199	46.89	984	31.37	8423	91.78	31150	176.49	2144	46.30	1376	37.09	613	24.76
B-3_	541	2294	47.90	1003	31.67	8234	90.74	31385	177.16	2150	46.37	1463	38.25	617	24.84
B-3_	542	2220	47.12	1019	31.92	8318	91.20	31453	177.35	2144	46.30	1516	38.94	617	24.84
B-3_	543	2239	47.32	1059	32.54	8225	90.69	31597	177.76	2119	46.03	1470	38.34	605	24.60
B-3_	544	2271	47.66	1051	32.42	8250	90.83	31386	177.16	2168	46.56	1486	38.55	600	24.49
B-3_	545	2231	47.23	1022	31.97	8169	90.38	31376	177.13	2126	46.11	1549	39.36	541	23.26
B-3_	546	2183	46.72	1053	32.45	8025	89.58	31629	177.85	2121	46.05	1491	38.61	609	24.68
B-3_	547	2228	47.20	1054	32.47	8169	90.38	31486	177.44	2106	45.89	1566	39.57	622	24.94
B-3_	548	2262	47.56	1008	31.75	8302	91.12	31720	178.10	2071	45.51	1501	38.74	582	24.12
B-3_	549	2237	47.30	939	30.64	8189	90.49	31461	177.37	2213	47.04	1444	38.00	636	25.22
B-3_	550	2164	46.52	950	30.82	8155	90.31	31741	178.16	2075	45.55	1449	38.07	586	24.21
B-3_	551	2223	47.15	1009	31.76	8122	90.12	31319	176.97	2142	46.28	1502	38.76	649	25.48
B-3_	552	2249	47.42	995	31.54	8191	90.50	31320	176.97	2092	45.74	1437	37.91	593	24.35
B-3_	553	2182	46.71	1008	31.75	8130	90.17	31409	177.23	2156	46.43	1509	38.85	667	25.83
B-3_	554	2301	47.97	1028	32.06	8107	90.04	31604	177.78	2179	46.68	1449	38.07	559	23.64
B-3_	555	2227	47.19	980	31.30	8186	90.48	31802	178.33	2190	46.80	1457	38.17	634	25.18
B-3_	556	2130	46.15	1013	31.83	8166	90.37	31660	177.93	2125	46.10	1412	37.58	597	24.43
B-3_	557	2258	47.52	969	31.13	7977	89.31	31644	177.89	2120	46.04	1445	38.01	616	24.82
B-3_	558	2194	46.84	996	31.56	7900	88.88	31770	178.24	2135	46.21	1416	37.63	594	24.37
B-3_	559	2280	47.75	928	30.46	7652	87.48	32066	179.07	2185	46.74	1412	37.58	586	24.21
B-3_	560	2190	46.80	985	31.38	7621	87.30	32125	179.23	2143	46.29	1327	36.43	583	24.15
B-3_	561	2124	46.09	997	31.58	7504	86.63	32245	179.57	2223	47.15	1362	36.91	577	24.02
B-3_	562	2061	45.40	988	31.43	7400	86.02	32147	179.30	2195	46.85	1350	36.74	614	24.78
B-3_	563	2137	46.23	1015	31.86	7341	85.68	32578	180.49	2065	45.44	1286	35.86	619	24.88
B-3_	564	2066	45.45	1001	31.64	7305	85.47	32796	181.10	2168	46.56	1372	37.04	558	23.62
B-3_	565	2210	47.01	987	31.42	7394	85.99	32519	180.33	2099	45.81	1295	35.99	579	24.06
B-3_	566	2188	46.78	974	31.21	7584	87.09	32323	179.79	2189	46.79	1378	37.12	583	24.15
B-3_	567	2167	46.55	1005	31.70	7773	88.16	32326	179.79	2139	46.25	1330	36.47	602	24.54
B-3_	568	2217	47.09	990	31.46	7795	88.29	31970	178.80	2229	47.21	1379	37.13	618	24.86
B-3_	569	2291	47.86	1038	32.22	7649	87.46	31785	178.28	2171	46.59	1388	37.26	616	24.82
B-3_	570	2292	47.87	1029	32.08	7884	88.79	31665	177.95	2193	46.83	1409	37.54	651	25.51
B-3_	571	2157	46.44	1064	32.62	7714	87.83	31841	178.44	2247	47.40	1405	37.48	644	25.38
B-3_	572	2180	46.69	1002	31.65	7788	88.25	31662	177.94	2213	47.04	1453	38.12	624	24.98
B-3_	573	2250	47.43	959	30.97	7818	88.42	31918	178.66	2228	47.20	1409	37.54	583	24.15
B-3_	574	2167	46.55	977	31.26	7834	88.51	31569	177.68	2312	48.08	1469	38.33	633	25.16
B-3_	575	2288	47.83	1071	32.73	7628	87.34	32012	178.92	2265	47.59	1394	37.34	588	24.25
B-3_	576	2188	46.78	981	31.32	7678	87.62	32320	179.78	2310	48.06	1392	37.31	607	24.64
B-3_	577	2321	48.18	1009	31.76	7548	86.88	32029	178.97	2210	47.01	1417	37.64	591	24.31
B-3_	578	2315	48.11	1020	31.94	7471	86.43	32393	179.98	2098	45.80	1348	36.72	589	24.27
B-3_	579	2162	46.50	986	31.40	7442	86.27	32307	179.74	2261	47.55	1409	37.54	588	24.25
B-3_	580	2214	47.05	1085	32.94	7244	85.11	32120	179.22	2347	48.45	1443	37.99	644	25.38
B-3_	581	2084	45.65	1036	32.19	7285	85.35	32059	179.05	2212	47.03	1412	37.58	651	25.51
B-3_	582	2165	46.53	1070	32.71	7395	85.99	32207	179.46	2224	47.16	1448	38.05	672	25.92
B-3_	583	2299	47.95	971	31.16	7377	85.89	32019	178.94	2276	47.71	1392	37.31	615	24.80
B-3_	584	2190	46.80	1010	31.78	7371	85.85	32589	180.52	2288	47.83	1304	36.11	562	23.71
B-3_	585	2215	47.06	951	30.84	7430	86.20	32186	179.40	2221	47.13	1232	35.10	576	24.00
B-3_	586	2214	47.05	1002	31.65	7495	86.57	32488	180.24	2216	47.07	1339	36.59	590	24.29
B-3_	587	2232	47.24	1045	32.33	7640	87.41	32160	179.33	2258	47.52	1215	34.86	570	23.87
B-3_	588	2204	46.95	989	31.45	7624	87.32	32452	180.14	2179	46.68	1270	35.64	582	24.12
B-3_	589	2219	47.11	1036	32.19	7404	86.05	32453	180.15	2203	46.94	1242	35.24	583	24.15
B-3_	590	2206	46.97	935	30.58	7491	86.55	32238	179.55	2196	46.86	1172	34.23	626	25.02
B-3_	591	2139	46.25	986	31.40	7401	86.03	32141	179.28	2303	47.99	1203	34.68	567	23.81
B-3_	592	2256	47.50	1010	31.78	7405	86.05	32690	180.80	2221	47.13	1205	34.71	552	23.49
B-3_	593	2226	47.18	960	30.98	7258	85.19	32592	180.53	2221	47.13	1164	34.12	584	24.17
B-3_	594	2192	46.82	997	31.58	7285	85.35	32588	180.52	2145	46.31	1231	35.09	588	24.25
B-3_	595	2204	46.95	996	31.56	7432	86.21	31972	178.81	2255	47.49	1199	34.63	572	23.92
B-3_	596	2199	46.89	973	31.19	7602	87.19	31729	178.13	2281	47.76	1185	34.42	568	23.83
B-3_	597	2233	47.25	992	31.50	7450	86.31	32064	179.06	2270	47.64	1187	34.45	612	24.74
B-3_	598	2217	47.09	937	30.61	7276	85.30	32357	179.88	2253	47.47	1171	34.22	606	24.62
B-3_	599	2161	46.49	928	30.46	7329	85.61	32502	180.28	2255	47.49	1157	34.01	560	23.66
B-3_	600	2212	47.03	936	30.59	7339	85.67	32268	179.63	2260	47.54	1208	34.76	616	24.82
B-3_	601	2203	46.94	911	30.18	7186	84.77	32745	180.96	2276	47.71	1231	35.09	594	24.37
B-3_	602	2236	47.29	935	30.58	7341	85.68	32280	179.67	2270	47.64	1217	34.89	611	24.72
B-3_	603	2213	47.04	927	30.45	7134	84.46	32323	179.79	2251	47.44	1172	34.23	603	24.56
B-3_	604	2257	47.51	933	30.55	7191	84.80	32229	179.52	2268	47.62	1136	33.70	587	24.23
B-3_	605	2240	47.33	985	31.38	7375	85.88	32374	179.93	2248	47.41	1126	33.56	570	23.87
B-3_	606	2225	47.17	965	31.06	7340	85.67	32408	180.02	2237	47.30	1215	34.86	537	23.17

EA4_8

*B-3_*	607	2224	47.16	929	30.48	7402	86.03	31937	178.71	2271	47.66	1178	34.32	604	24.58
*B-3_*	608	2393	48.92	948	30.79	7354	85.76	32397	179.99	2369	48.67	1180	34.35	590	24.29
*C-1_*	1	5840	76.42	2302	47.98	13095	114.43	58173	241.19	4856	69.69	2700	51.96	1278	35.75
*C-1_*	2	5662	75.25	2288	47.83	13208	114.93	59332	243.58	5121	71.56	2753	52.47	1291	35.93
*C-1_*	3	5759	75.89	2269	47.63	13407	115.79	60197	245.35	5165	71.87	2750	52.44	1228	35.04
*C-1_*	4	5665	75.27	2185	46.74	13483	116.12	60982	246.95	4993	70.66	2695	51.91	1184	34.41
*C-1_*	5	5584	74.73	2196	46.86	13328	115.45	61629	248.25	5126	71.60	2663	51.60	1254	35.41
*C-1_*	6	5482	74.04	2163	46.51	13572	116.50	61864	248.72	5006	70.75	2647	51.45	1210	34.79
*C-1_*	7	5488	74.08	2120	46.04	13523	116.29	61993	248.98	5100	71.41	2571	50.71	1188	34.47
*C-1_*	8	5243	72.41	2158	46.45	13491	116.15	62475	249.95	5112	71.50	2393	48.92	1171	34.22
*C-1_*	9	5355	73.18	2163	46.51	13950	118.11	63234	251.46	5163	71.85	2501	50.01	1140	33.76
*C-1_*	10	5255	72.49	2085	45.66	14002	118.33	62313	249.63	5210	72.18	2460	49.60	1197	34.60
*C-1_*	11	5186	72.01	2115	45.99	14190	119.12	62882	250.76	5097	71.39	2414	49.13	1121	33.48
*C-1_*	12	5260	72.53	2082	45.63	14299	119.58	63007	251.01	5223	72.27	2382	48.81	1171	34.22
*C-1_*	13	5302	72.81	2050	45.28	14403	120.01	62750	250.50	5236	72.36	2400	48.99	1142	33.79
*C-1_*	14	5152	71.78	2059	45.38	14633	120.97	62782	250.56	5229	72.31	2472	49.72	1219	34.91
*C-1_*	15	5220	72.25	1954	44.20	14910	122.11	62546	250.09	5321	72.95	2403	49.02	1237	35.17
*C-1_*	16	5115	71.52	2103	45.86	15032	122.61	63009	251.02	5142	71.71	2433	49.33	1185	34.42
*C-1_*	17	5207	72.16	2042	45.19	15273	123.58	63142	251.28	5240	72.39	2466	49.66	1149	33.90
*C-1_*	18	5125	71.59	2081	45.62	15444	124.27	63216	251.43	5194	72.07	2467	49.67	1152	33.94
*C-1_*	19	5132	71.64	2052	45.30	15354	123.91	63386	251.77	5164	71.86	2471	49.71	1152	33.94
*C-1_*	20	5074	71.23	2106	45.89	15605	124.92	63260	251.52	5256	72.50	2451	49.51	1133	33.66
*C-1_*	21	5080	71.27	2033	45.09	15678	125.21	63336	251.67	5211	72.19	2471	49.71	1173	34.25
*C-1_*	22	5020	70.85	2088	45.69	15618	124.97	63301	251.60	5202	72.12	2429	49.28	1124	33.53
*C-1_*	23	4838	69.56	2115	45.99	15843	125.87	62915	250.83	5287	72.71	2483	49.83	1154	33.97
*C-1_*	24	5104	71.44	2062	45.41	15927	126.20	62958	250.91	5320	72.94	2457	49.57	1173	34.25
*C-1_*	25	4919	70.14	2067	45.46	15954	126.31	63044	251.09	5187	72.02	2411	49.10	1136	33.70
*C-1_*	26	4778	69.12	2020	44.94	15866	125.96	63236	251.47	5174	71.93	2534	50.34	1145	33.84
*C-1_*	27	4847	69.62	2048	45.25	16050	126.69	63621	252.23	5156	71.81	2376	48.74	1110	33.32
*C-1_*	28	4877	69.84	2042	45.19	16054	126.70	63491	251.97	5167	71.88	2506	50.06	1195	34.57
*C-1_*	29	4754	68.95	2036	45.12	15937	126.24	63419	251.83	5097	71.39	2546	50.46	1176	34.29
*C-1_*	30	4776	69.11	2063	45.42	16038	126.64	63301	251.60	4996	70.68	2525	50.25	1168	34.18
*C-1_*	31	4774	69.09	2064	45.43	15953	126.31	63394	251.78	4998	70.70	2503	50.03	1166	34.15
*C-1_*	32	4705	68.59	2035	45.11	16172	127.17	63738	252.46	4953	70.38	2569	50.69	1188	34.47
*C-1_*	33	4731	68.78	2064	45.43	16264	127.53	63984	252.95	5086	71.32	2574	50.73	1159	34.04
*C-1_*	34	4795	69.25	2110	45.93	16147	127.07	63688	252.36	5047	71.04	2506	50.06	1168	34.18
*C-1_*	35	4817	69.40	2073	45.53	16137	127.03	63433	251.86	4987	70.62	2516	50.16	1224	34.99
*C-1_*	36	4639	68.11	2105	45.88	16110	126.93	63853	252.69	5012	70.80	2451	49.51	1222	34.96
*C-1_*	37	4660	68.26	2143	46.29	15934	126.23	64145	253.27	4882	69.87	2428	49.27	1255	35.43
*C-1_*	38	4707	68.61	2116	46.00	15924	126.19	64141	253.26	4921	70.15	2491	49.91	1207	34.74
*C-1_*	39	4678	68.40	2116	46.00	16227	127.39	63794	252.57	4968	70.48	2484	49.84	1163	34.10
*C-1_*	40	4546	67.42	2118	46.02	16169	127.16	63952	252.89	4869	69.78	2561	50.61	1174	34.26
*C-1_*	41	4600	67.82	2094	45.76	16184	127.22	63894	252.77	4919	70.14	2474	49.74	1244	35.27
*C-1_*	42	4596	67.79	2033	45.09	16166	127.15	63845	252.68	4993	70.66	2519	50.19	1228	35.04
*C-1_*	43	4554	67.48	2107	45.90	16154	127.10	63971	252.92	4998	70.70	2598	50.97	1253	35.40
*C-1_*	44	4579	67.67	2043	45.20	16269	127.55	64390	253.75	4841	69.58	2562	50.62	1211	34.80
*C-1_*	45	4540	67.38	2103	45.86	16306	127.69	63913	252.81	4763	69.01	2599	50.98	1216	34.87
*C-1_*	46	4574	67.63	2149	46.36	16267	127.54	64194	253.37	4929	70.21	2470	49.70	1177	34.31
*C-1_*	47	4476	66.90	2103	45.86	16180	127.20	63994	252.97	4787	69.19	2500	50.00	1220	34.93
*C-1_*	48	4627	68.02	2044	45.21	16023	126.58	64367	253.71	4799	69.27	2389	48.88	1198	34.61
*C-1_*	49	4405	66.37	2063	45.42	16341	127.83	64425	253.82	4616	67.94	2607	51.06	1321	36.35
*C-1_*	50	4550	67.45	2076	45.56	16533	128.58	64540	254.05	4791	69.22	2485	49.85	1235	35.14
*C-1_*	51	4469	66.85	2100	45.83	16097	126.87	64352	253.68	4781	69.14	2541	50.41	1250	35.36
*C-1_*	52	4476	66.90	2039	45.16	16088	126.84	64525	254.02	4800	69.28	2558	50.58	1196	34.58
*C-1_*	53	4529	67.30	2055	45.33	16240	127.44	64416	253.80	4644	68.15	2538	50.38	1220	34.93
*C-1_*	54	4461	66.79	2115	45.99	16068	126.76	64328	253.63	4777	69.12	2552	50.52	1230	35.07
*C-1_*	55	4405	66.37	2058	45.37	16126	126.99	64381	253.73	4865	69.75	2512	50.12	1261	35.51
*C-1_*	56	4319	65.72	2073	45.53	15994	126.47	64751	254.46	4708	68.61	2444	49.44	1225	35.00
*C-1_*	57	4432	66.57	2012	44.86	16226	127.38	64939	254.83	4706	68.60	2560	50.60	1187	34.45
*C-1_*	58	4475	66.90	2094	45.76	16161	127.13	64799	254.56	4665	68.30	2565	50.65	1216	34.87
*C-1_*	59	4464	66.81	2097	45.79	16041	126.65	64522	254.01	4641	68.12	2582	50.81	1176	34.29
*C-1_*	60	4399	66.32	2015	44.89	16134	127.02	65011	254.97	4762	69.01	2530	50.30	1203	34.68
*C-1_*	61	4481	66.94	2081	45.62	16279	127.59	65221	255.38	4573	67.62	2592	50.91	1256	35.44
*C-1_*	62	4510	67.16	2123	46.08	16046	126.67	64665	254.29	4510	67.16	2546	50.46	1226	35.01
*C-1_*	63	4255	65.23	2071	45.51	16228	127.39	65025	255.00	4522	67.25	2563	50.63	1215	34.86
*C-1_*	64	4400	66.33	2081	45.62	16205	127.30	65255	255.45	4493	67.03	2624	51.22	1246	35.30
*C-1_*	65	4368	66.09	2015	44.89	16253	127.49	64710	254.38	4517	67.21	2590	50.89	1180	34.35
*C-1_*	66	4423	66.51	2131	46.16	16250	127.48	65116	255.18	4491	67.01	2540	50.40	1235	35.14
*C-1_*	67	4284	65.45	2078	45.59	16264	127.53	64892	254.74	4637	68.10	2560	50.60	1225	35.00
*C-1_*	68	4319	65.72	2088	45.69	15973	126.38	65056	255.06	4693	68.51	2483	49.83	1209	34.77
*C-1_*	69	4352	65.97	2076	45.56	16137	127.03	64620	254.20	4453	66.73	2604	51.03	1198	34.61
*C-1_*	70	4242	65.13	2164	46.52	16261	127.52	64937	254.83	4377	66.16	2629	51.27	1226	35.01
*C-1_*	71	4322	65.74	2174	46.63	16289	127.63	64612	254.19	4619	67.96	2734	52.29	1228	35.04
*C-1_*	72	4347	65.93	2161	46.49	16119	126.96	65236	255.41	4427	66.54	2670	51.67	1181	34.37
*C-1_*	73	4285	65.46	2161	46.49	16468	128.33	65257	255.45	4551	67.46	2607	51.06	1202	34.67
*C-1_*	74	4308	65.64	2023	44.98	16080	126.81	64730	254.42	4531	67.31	2655	51.53	1190	34.50
*C-1_*	75	4384	66.21	2085	45.66	16176	127.18	64961	254.87	4433	66.58	2646	51.44	1167	34.16
*C-1_*	76	4334	65.83	2034	45.10	16363	127.92	64778	254.52	4517	67.21	2664	51.61	1267	35.59
*C-1_*	77	4388	66.24	2099	45.81	16466	128.32	64664	254.29	4527	67.28	2682	51.79	1201	34.66
*C-1_*	78	4413	66.43	2151	46.38	16497	128.44	64712	254.39	4388	66.24	2562	50.62	1308	36.17
*C-1_*	79	4318	65.71	2080	45.61	16212	127.33	64597	254.16	4564	67.56	2635	51.33	1250	35.36
*C-1_*	80	4245	65.15	2146	46.32	16141	127.05	64695	254.35	4445	66.67	2650	51.48	1264	35.55
*C-1_*	81	4308	65.64	2207	46.98	16711	129.27	64850	254.66	4522	67.25	2665	51.62	1232	35.10
*C-1_*	82	4354	65.98	2043	45.20	16379	127.98	64628	254.22	4611	67.90	2666	51.63	1274	35.69
*C-1_*	83	4359	66.02	2126	46.11	16534	128.58	64704	254.37	4492	67.02	2721	52.16	1226	35.01
*C-1_*	84	4393	66.28	2070	45.50	16529	128.57	64543	254.05	4532	67.32	2730	52.25	1230	35.07
*C-1_*	85	4379	66.17	2079	45.60	16510	128.49	64350	253.67	4402	66.35	2758	52.52	1211	34.80
*C-1_*	86	4215	64.92	2122	46.07	16765	129.48	64839	254.64	4417	66.46	2683	51.80	1209	34.77
*C-1_*	87	4252	65.21	2096	45.78	16332	127.80	64573	254.11	4449	66.70	2766	52.59	1202	34.67
*C-1_*	88	4376	66.15	2022	44.97	16506	128.48	64508	253.98	4453	66.73	2748	52.42	1168	34.18
*C-1_*	89	4262	65.28	2028	45.03	16653	129.05	64324	253.62	4476	66.90	2684	51.81	1221	34.94
*C-1_*	90	4256	65.24	2126	46.11	16587	128.79	64721	254.40	4534	67.33	2817	53.08	1275	35.71
*C-1_*	91	4270	65.35	2133	46.18	16749	129.42	64749	254.46	4437	66.61	2890	53.76	1267	35.59

EA4_9

*C-1_*	92	4259	65.26	2083	45.64	16834	129.75	64384	253.74	4486	66.98	2728	52.23	1243	35.26
*C-1_*	93	4140	64.34	2098	45.80	16709	129.26	64402	253.78	4340	65.88	2800	52.92	1307	36.15
*C-1_*	94	4278	65.41	2059	45.38	16776	129.52	64705	254.37	4308	65.64	2751	52.45	1255	35.43
*C-1_*	95	4271	65.35	2115	45.99	16815	129.67	64375	253.72	4414	66.44	2842	53.31	1208	34.76
*C-1_*	96	4351	65.96	2134	46.20	16694	129.21	64140	253.26	4473	66.88	2805	52.96	1239	35.20
*C-1_*	97	4296	65.54	2064	45.43	16922	130.08	64755	254.47	4372	66.12	2820	53.10	1279	35.76
*C-1_*	98	4326	65.77	2098	45.80	16792	129.58	64219	253.41	4221	64.97	2841	53.30	1304	36.11
*C-1_*	99	4344	65.91	2051	45.29	16631	128.96	64386	253.74	4363	66.05	2734	52.29	1215	34.86
*C-1_*	100	4342	65.89	2127	46.12	16911	130.04	64581	254.13	4434	66.59	2760	52.54	1205	34.71
*C-1_*	101	4258	65.25	2012	44.86	16942	130.16	64146	253.27	4307	65.63	2812	53.03	1249	35.34
*C-1_*	102	4233	65.06	2118	46.02	16726	129.33	64132	253.24	4465	66.82	2969	54.49	1193	34.54
*C-1_*	103	4277	65.40	2157	46.44	17010	130.42	64034	253.05	4425	66.52	2819	53.09	1279	35.76
*C-1_*	104	4299	65.57	2112	45.96	16814	129.67	63791	252.57	4399	66.32	2823	53.13	1244	35.27
*C-1_*	105	4236	65.08	2143	46.29	16940	130.15	64609	254.18	4437	66.61	2832	53.22	1181	34.37
*C-1_*	106	4143	64.37	2105	45.88	17025	130.48	64172	253.32	4404	66.36	2824	53.14	1208	34.76
*C-1_*	107	4208	64.87	2130	46.15	16712	129.27	64644	254.25	4491	67.01	2804	52.95	1202	34.67
*C-1_*	108	4362	66.05	2067	45.46	17016	130.45	64346	253.67	4361	66.04	2739	52.34	1196	34.58
*C-1_*	109	4298	65.56	2136	46.22	16864	129.86	64082	253.14	4387	66.23	2862	53.50	1264	35.55
*C-1_*	110	4301	65.58	2031	45.07	16813	129.66	64371	253.71	4351	65.96	2808	52.99	1210	34.79
*C-1_*	111	4160	64.50	2134	46.20	16936	130.14	64940	254.83	4420	66.48	2768	52.61	1256	35.44
*C-1_*	112	4332	65.82	2191	46.81	16890	129.96	64584	254.13	4476	66.90	2852	53.40	1181	34.37
*C-1_*	113	4265	65.31	2159	46.47	16945	130.17	64276	253.53	4423	66.51	2769	52.62	1325	36.40
*C-1_*	114	4155	64.46	2051	45.29	16961	130.23	64124	253.23	4471	66.87	2740	52.35	1291	35.93
*C-1_*	115	4351	65.96	2074	45.54	17071	130.66	64421	253.81	4458	66.77	2914	53.98	1244	35.27
*C-1_*	116	4287	65.48	2115	45.99	17104	130.78	63701	252.39	4476	66.90	2831	53.21	1207	34.74
*C-1_*	117	4408	66.39	2142	46.28	17113	130.82	64377	253.73	4310	65.65	2919	54.03	1229	35.06
*C-1_*	118	4298	65.56	2159	46.47	17194	131.13	63905	252.79	4454	66.74	2923	54.06	1219	34.91
*C-1_*	119	4466	66.83	2132	46.17	17317	131.59	64015	253.01	4494	67.04	2898	53.83	1322	36.36
*C-1_*	120	4325	65.76	2232	47.24	17259	131.37	64034	253.05	4408	66.39	2825	53.15	1231	35.09
*C-1_*	121	4147	64.40	2042	45.19	17194	131.13	63768	252.52	4443	66.66	2906	53.91	1259	35.48
*C-1_*	122	4302	65.59	2178	46.67	17298	131.52	63847	252.68	4346	65.92	3018	54.94	1339	36.59
*C-1_*	123	4332	65.82	2255	47.49	17581	132.59	64363	253.70	4456	66.75	2917	54.01	1238	35.19
*C-1_*	124	4287	65.48	2077	45.57	17444	132.08	63784	252.55	4429	66.55	2904	53.89	1243	35.26
*C-1_*	125	4235	65.08	2088	45.69	17420	131.98	63473	251.94	4475	66.90	2746	52.40	1321	36.35
*C-1_*	126	4412	66.42	2151	46.38	17210	131.19	63910	252.80	4320	65.73	2920	54.04	1293	35.96
*C-1_*	127	4470	66.86	2181	46.70	17432	132.03	63753	252.49	4395	66.29	2966	54.46	1226	35.01
*C-1_*	128	4359	66.02	2137	46.23	17470	132.17	63194	251.38	4443	66.66	2880	53.67	1318	36.30
*C-1_*	129	4459	66.78	2096	45.78	17725	133.14	63313	251.62	4429	66.55	2812	53.03	1268	35.61
*C-1_*	130	4365	66.07	2143	46.29	17560	132.51	63245	251.49	4443	66.66	2946	54.28	1275	35.71
*C-1_*	131	4376	66.15	2236	47.29	17583	132.60	62981	250.96	4363	66.05	2841	53.30	1275	35.71
*C-1_*	132	4391	66.26	2113	45.97	17430	132.02	63326	251.65	4513	67.18	2924	54.07	1278	35.75
*C-1_*	133	4343	65.90	2210	47.01	17625	132.76	63460	251.91	4398	66.32	2894	53.80	1314	36.25
*C-1_*	134	4304	65.60	2079	45.60	17744	133.21	63615	252.22	4506	67.13	2864	53.52	1275	35.71
*C-1_*	135	4392	66.27	2159	46.47	17474	132.19	63014	251.03	4652	68.21	2897	53.82	1263	35.54
*C-1_*	136	4327	65.78	2144	46.30	17648	132.85	63110	251.22	4481	66.94	2918	54.02	1303	36.10
*C-1_*	137	4358	66.02	2132	46.17	17525	132.38	63322	251.64	4506	67.13	2887	53.73	1304	36.11
*C-1_*	138	4219	64.95	2197	46.87	17472	132.18	63923	252.83	4632	68.06	2828	53.18	1296	36.00
*C-1_*	139	4277	65.40	2134	46.20	17445	132.08	63413	251.82	4374	66.14	2900	53.85	1264	35.55
*C-1_*	140	4333	65.83	2193	46.83	17243	131.31	63676	252.34	4506	67.13	2746	52.40	1344	36.66
*C-1_*	141	4270	65.35	2113	45.97	17103	130.78	64307	253.59	4541	67.39	2774	52.67	1286	35.86
*C-1_*	142	4320	65.73	2052	45.30	17095	130.75	64039	253.06	4504	67.11	2719	52.14	1250	35.36
*C-1_*	143	4352	65.97	2222	47.14	17158	130.99	64197	253.37	4600	67.82	2818	53.08	1310	36.19
*C-1_*	144	4332	65.82	2126	46.11	17080	130.69	63527	252.05	4514	67.19	2753	52.47	1232	35.10
*C-1_*	145	4251	65.20	2212	47.03	17265	131.40	64193	253.36	4603	67.85	2858	53.46	1266	35.58
*C-1_*	146	4290	65.50	2095	45.77	16707	129.26	64224	253.42	4579	67.67	2790	52.82	1269	35.62
*C-1_*	147	4390	66.26	2180	46.69	16798	129.61	64611	254.19	4511	67.16	2741	52.35	1236	35.16
*C-1_*	148	4262	65.28	2165	46.53	16917	130.07	64903	254.76	4496	67.05	2663	51.60	1275	35.71
*C-1_*	149	4271	65.35	2122	46.07	16650	129.03	64355	253.68	4648	68.18	2630	51.28	1177	34.31
*C-1_*	150	4283	65.44	2099	45.81	16436	128.20	64108	253.20	4581	67.68	2679	51.76	1296	36.00
*C-1_*	151	4288	65.48	2049	45.27	16546	128.63	64755	254.47	4741	68.85	2623	51.22	1293	35.96
*C-1_*	152	4260	65.27	2088	45.69	16470	128.34	65055	255.06	4627	68.02	2651	51.49	1215	34.86
*C-1_*	153	4255	65.23	2147	46.34	16721	129.31	64633	254.23	4750	68.92	2506	50.06	1258	35.47
*C-1_*	154	4364	66.06	2110	45.93	16307	127.70	64848	254.65	4643	68.14	2747	52.41	1229	35.06
*C-1_*	155	4305	65.61	2229	47.21	16396	128.05	64357	253.69	4708	68.61	2677	51.74	1288	35.89
*C-1_*	156	4304	65.60	2137	46.23	16165	127.14	64452	253.87	4846	69.61	2611	51.10	1234	35.13
*C-1_*	157	4458	66.77	2123	46.08	16337	127.82	64618	254.20	4616	67.94	2717	52.12	1228	35.04
*C-1_*	158	4345	65.92	2117	46.01	16320	127.75	64751	254.46	4663	68.29	2632	51.30	1293	35.96
*C-1_*	159	4426	66.53	2178	46.67	16371	127.95	64925	254.80	4720	68.70	2620	51.19	1195	34.57
*C-1_*	160	4428	66.54	2097	45.79	16215	127.34	64925	254.80	4666	68.31	2574	50.73	1279	35.76
*C-1_*	161	4359	66.02	2142	46.28	16239	127.43	64876	254.71	4804	69.31	2627	51.25	1243	35.26
*C-1_*	162	4360	66.03	2092	45.74	16207	127.31	64686	254.33	4767	69.04	2566	50.66	1203	34.68
*C-1_*	163	4546	67.42	2176	46.65	16125	126.98	64795	254.55	4867	69.76	2601	51.00	1190	34.50
*C-1_*	164	4336	65.85	2161	46.49	16136	127.03	64561	254.09	4935	70.25	2519	50.19	1213	34.83
*C-1_*	165	4372	66.12	2072	45.52	16189	127.24	64858	254.67	4795	69.25	2591	50.90	1213	34.83
*C-1_*	166	4495	67.04	1967	44.35	16186	127.22	65045	255.04	4873	69.81	2602	51.01	1182	34.38
*C-1_*	167	4342	65.89	2036	45.12	16064	126.74	65066	255.08	4950	70.36	2531	50.31	1213	34.83
*C-1_*	168	4410	66.41	2106	45.89	16089	126.84	64954	254.86	5033	70.94	2568	50.68	1200	34.64
*C-1_*	169	4391	66.26	2095	45.77	16081	126.81	64914	254.78	5011	70.79	2632	51.30	1245	35.28
*C-1_*	170	4416	66.45	2156	46.43	16048	126.68	64769	254.50	5119	71.55	2618	51.17	1189	34.48
*C-1_*	171	4466	66.83	2162	46.50	15953	126.31	64667	254.30	5042	71.01	2514	50.14	1256	35.44
*C-1_*	172	4502	67.10	2123	46.08	16100	126.89	64495	253.96	5023	70.87	2528	50.28	1183	34.39
*C-1_*	173	4513	67.18	2111	45.95	15958	126.32	64768	254.50	5213	72.20	2628	51.26	1289	35.90
*C-1_*	174	4630	68.04	2062	45.41	16117	126.95	65228	255.40	5158	71.82	2536	50.36	1259	35.48
*C-1_*	175	4493	67.03	2073	45.53	15837	125.85	64854	254.66	5362	73.23	2359	48.57	1255	35.43
*C-1_*	176	4603	67.85	2058	45.37	16102	126.89	64753	254.47	5204	72.14	2533	50.33	1202	34.67
*C-1_*	177	4639	68.11	2118	46.02	15776	125.60	64872	254.70	5159	71.83	2434	49.34	1214	34.84
*C-1_*	178	4500	67.08	2089	45.71	16234	127.41	64744	254.45	5268	72.58	2505	50.05	1215	34.86
*C-1_*	179	4651	68.20	2073	45.53	16052	126.70	64498	253.96	5332	73.02	2567	50.67	1161	34.07
*C-1_*	180	4661	68.27	2076	45.56	16067	126.76	64434	253.84	5390	73.42	2495	49.95	1234	35.13
*C-1_*	181	4828	69.48	2150	46.37	16048	126.68	64334	253.64	5413	73.57	2424	49.23	1159	34.04
*C-1_*	182	4829	69.49	2047	45.24	15713	125.35	65354	255.64	5368	73.27	2527	50.27	1177	34.31
*C-1_*	183	4770	69.07	2071	45.51	15947	126.28	64322	253.62	5464	73.92	2475	49.75	1198	34.61
*C-1_*	184	4858	69.70	2054	45.32	15919	126.17	64494	253.96	5543	74.45	2475	49.75	1208	34.76

EA4_10

*C-1_*	185	4948	70.34	2001	44.73	15925	126.19	64550	254.07	5541	74.44	2540	50.40	1231	35.09
*C-1_*	186	5014	70.81	2043	45.20	15960	126.33	64484	253.94	5709	75.56	2454	49.54	1239	35.20
*C-1_*	187	4957	70.41	1996	44.68	15903	126.11	64477	253.92	5576	74.67	2495	49.95	1212	34.81
*C-1_*	188	5074	71.23	2060	45.39	15535	124.64	65109	255.16	5713	75.58	2654	51.52	1195	34.57
*C-1_*	189	5136	71.67	2028	45.03	15200	123.29	64500	253.97	5696	75.47	2449	49.49	1222	34.96
*C-1_*	190	4976	70.54	2109	45.92	15106	122.91	64976	254.90	5758	75.88	2619	51.18	1258	35.47
*C-1_*	191	5188	72.03	2059	45.38	14965	122.33	65335	255.61	5768	75.95	2596	50.95	1184	34.41
*C-1_*	192	5116	71.53	2123	46.08	14523	120.51	64958	254.87	5685	75.40	2663	51.60	1271	35.65
*C-1_*	193	5184	72.00	2123	46.08	14133	118.88	65115	255.18	5811	76.23	2536	50.36	1253	35.40
*C-1_*	194	5450	73.82	2154	46.41	14294	119.56	65347	255.63	5756	75.87	2649	51.47	1283	35.82
*C-1_*	195	5615	74.93	2035	45.11	14164	119.01	65057	255.06	5755	75.86	2596	50.95	1269	35.62
*C-1_*	196	5697	75.48	2271	47.66	14232	119.30	65486	255.90	5790	76.09	2770	52.63	1323	36.37
*C-1_*	197	5944	77.10	2202	46.93	13704	117.06	64667	254.30	5900	76.81	2717	52.12	1341	36.62
*C-1_*	198	5926	76.98	2178	46.67	12572	112.12	65549	256.03	6032	77.67	2930	54.13	1478	38.44
*C-1_*	199	5753	75.85	2146	46.32	9672	98.35	68454	261.64	5221	72.26	3204	56.60	1696	41.18
*C-1_*	200	5652	75.18	2051	45.29	9351	96.70	69718	264.04	5314	72.90	2662	51.59	1379	37.13
*C-1_*	201	5940	77.07	1872	43.27	10199	100.99	69903	264.39	5375	73.31	2538	50.38	1343	36.65
*C-1_*	202	6056	77.82	1945	44.10	10297	101.47	68980	262.64	5477	74.01	2542	50.42	1283	35.82
*C-1_*	203	6178	78.60	2023	44.98	11074	105.23	68421	261.57	5605	74.87	2461	49.61	1234	35.13
*C-1_*	204	6427	80.17	1877	43.32	11960	109.36	67200	259.23	5771	75.97	2428	49.27	1219	34.91
*C-1_*	205	6419	80.12	1887	43.44	12843	113.33	66602	258.07	5813	76.24	2389	48.88	1151	33.93
*C-1_*	206	6634	81.45	1886	43.43	13506	116.22	65747	256.41	6032	77.67	2471	49.71	1100	33.17
*C-1_*	207	6708	81.90	1851	43.02	13709	117.09	65149	255.24	5933	77.03	2356	48.54	1093	33.06
*C-1_*	208	6408	80.05	1856	43.08	14077	118.65	65585	256.10	5999	77.45	2504	50.04	1088	32.98
*C-1_*	209	6542	80.88	1885	43.42	13812	117.52	64832	254.62	6224	78.89	2424	49.23	1074	32.77
*C-1_*	210	6541	80.88	1904	43.63	13983	118.25	65028	255.01	6009	77.52	2458	49.58	1144	33.82
*C-1_*	211	6617	81.34	1859	43.12	13977	118.22	65496	255.92	6006	77.50	2287	47.82	1110	33.32
*C-1_*	212	6506	80.66	1908	43.68	13924	118.00	64629	254.22	6011	77.53	2306	48.02	1077	32.82
*C-1_*	213	6499	80.62	1880	43.36	14063	118.59	65303	255.54	6093	78.06	2326	48.23	1096	33.11
*C-1_*	214	6419	80.12	1897	43.55	14037	118.48	65219	255.38	6128	78.28	2380	48.79	1114	33.38
*C-1_*	215	6400	80.00	1836	42.85	14239	119.33	64719	254.40	6061	77.85	2367	48.65	1104	33.23
*C-1_*	216	6526	80.78	1978	44.47	14155	118.97	65214	255.37	5943	77.09	2439	49.39	1139	33.75
*C-1_*	217	6372	79.82	1961	44.28	14229	119.29	65117	255.18	6022	77.60	2359	48.57	1091	33.03
*C-1_*	218	6404	80.02	1814	42.59	14335	119.73	64318	253.61	5912	76.89	2359	48.57	1077	32.82
*C-2_*	1	3990	63.17	1903	43.62	12526	111.92	62825	250.65	3873	62.23	1953	44.19	972	31.18
*C-2_*	2	3866	62.18	1910	43.70	12853	113.37	63224	251.44	3861	62.14	2129	46.14	1008	31.75
*C-2_*	3	3789	61.55	1849	43.00	13032	114.16	64262	253.50	3861	62.14	2260	47.54	977	31.26
*C-2_*	4	3848	62.03	1970	44.38	13121	114.55	63625	252.24	3725	61.03	2341	48.38	1039	32.23
*C-2_*	5	3762	61.34	1938	44.02	13478	116.09	64016	253.01	3796	61.61	2495	49.95	1048	32.37
*C-2_*	6	3709	60.90	1967	44.35	13712	117.10	64065	253.11	3787	61.54	2617	51.16	1108	33.29
*C-2_*	7	3816	61.77	1957	44.24	13720	117.13	63767	252.52	3745	61.20	2642	51.40	1157	34.01
*C-2_*	8	3733	61.10	1954	44.20	14119	118.82	64014	253.01	3843	61.99	2631	51.29	1109	33.30
*C-2_*	9	3703	60.85	1969	44.37	13968	118.19	64123	253.23	3728	61.06	2655	51.53	1127	33.57
*C-2_*	10	3812	61.74	1871	43.26	14209	119.20	64069	253.12	3916	62.58	2703	51.99	1160	34.06
*C-2_*	11	3812	61.74	1991	44.62	14398	119.99	63982	252.95	3762	61.34	2713	52.09	1095	33.09
*C-2_*	12	3855	62.09	1967	44.35	14405	120.02	63918	252.82	3841	61.98	2760	52.54	1122	33.50
*C-2_*	13	3798	61.63	1980	44.50	14685	121.18	64228	253.43	3750	61.24	2704	52.00	1099	33.15
*C-2_*	14	3953	62.87	1991	44.62	14633	120.97	64447	253.86	3858	62.11	2853	53.41	1208	34.76
*C-2_*	15	3845	62.01	2006	44.79	14587	120.78	64314	253.60	3855	62.09	2779	52.72	1189	34.48
*C-2_*	16	3926	62.66	2022	44.97	14809	121.69	64651	254.27	3848	62.03	2715	52.11	1116	33.41
*C-2_*	17	3817	61.78	1958	44.25	14808	121.69	64643	254.25	3909	62.52	2707	52.03	1200	34.64
*C-2_*	18	3925	62.65	2068	45.48	14865	121.92	64485	253.94	3934	62.72	2785	52.77	1124	33.53
*C-2_*	19	3912	62.55	2022	44.97	15019	122.55	64272	253.52	3835	61.93	2791	52.83	1210	34.79
*C-2_*	20	3860	62.13	1937	44.01	14936	122.21	64483	253.94	4003	63.27	2767	52.60	1127	33.57
*C-2_*	21	3834	61.92	1967	44.35	15080	122.80	64139	253.26	3879	62.28	2912	53.96	1164	34.12
*C-2_*	22	3885	62.33	1958	44.25	15141	123.05	64377	253.73	3874	62.24	2881	53.67	1165	34.13
*C-2_*	23	3982	63.10	2048	45.25	15273	123.58	64556	254.08	3881	62.30	2968	54.48	1185	34.42
*C-2_*	24	3873	62.23	1983	44.53	15501	124.50	64442	253.85	4065	63.76	2936	54.18	1138	33.73
*C-2_*	25	4031	63.49	2002	44.74	15382	124.02	64204	253.39	3943	62.79	2916	54.00	1199	34.63
*C-2_*	26	3761	61.33	2098	45.80	15581	124.82	64369	253.71	3990	63.17	2982	54.61	1192	34.53
*C-2_*	27	3941	62.78	1978	44.47	15578	124.81	63822	252.63	3938	62.75	2987	54.65	1171	34.22
*C-2_*	28	3921	62.62	2044	45.21	15409	124.13	64406	253.78	3957	62.90	2889	53.75	1133	33.66
*C-2_*	29	3955	62.89	2059	45.38	15650	125.10	64393	253.76	4043	63.58	2835	53.24	1139	33.75
*C-2_*	30	3882	62.31	2078	45.59	16060	126.73	64104	253.19	4073	63.82	2880	53.67	1159	34.04
*C-2_*	31	3885	62.33	2035	45.11	15894	126.07	64248	253.47	4067	63.77	2998	54.75	1203	34.68
*C-2_*	32	3970	63.01	2012	44.86	15686	125.24	64080	253.14	3976	63.06	2977	54.56	1192	34.53
*C-2_*	33	3921	62.62	1944	44.09	15896	126.08	64366	253.70	4008	63.31	2953	54.34	1166	34.15
*C-2_*	34	3897	62.43	2002	44.74	15939	126.25	64491	253.95	4011	63.33	2928	54.11	1232	35.10
*C-2_*	35	3975	63.05	2033	45.09	15781	125.62	64485	253.94	3931	62.70	2970	54.50	1194	34.55
*C-2_*	36	3923	62.63	2084	45.65	16144	127.06	64564	254.09	3958	62.91	2998	54.75	1216	34.87
*C-2_*	37	3990	63.17	2077	45.57	15962	126.34	64328	253.63	4016	63.37	2956	54.37	1171	34.22
*C-2_*	38	3979	63.08	2053	45.31	15851	125.90	63702	252.39	4040	63.56	2955	54.36	1164	34.12
*C-2_*	39	3946	62.82	2113	45.97	16027	126.60	64311	253.60	3999	63.24	2979	54.58	1196	34.58
*C-2_*	40	3867	62.19	2056	45.34	15940	126.25	64154	253.29	4020	63.40	2957	54.38	1239	35.20
*C-2_*	41	3858	62.11	2095	45.77	16281	127.60	64505	253.98	3951	62.86	2971	54.51	1188	34.47
*C-2_*	42	3966	62.98	1977	44.46	16117	126.95	64320	253.61	3970	63.01	3003	54.80	1188	34.47
*C-2_*	43	4034	63.51	2028	45.03	15955	126.31	63962	252.91	3994	63.20	2979	54.58	1305	36.12
*C-2_*	44	3937	62.75	2031	45.07	15780	125.62	64191	253.36	4066	63.77	3036	55.10	1184	34.41
*C-2_*	45	3986	63.13	1973	44.42	15887	126.04	64751	254.46	3938	62.75	3003	54.80	1151	33.93
*C-2_*	46	3968	62.99	2012	44.86	16156	127.11	64664	254.29	4081	63.88	3018	54.94	1226	35.01
*C-2_*	47	3922	62.63	2074	45.54	15842	125.87	64605	254.18	3968	62.99	2953	54.34	1129	33.60
*C-2_*	48	3832	61.90	2053	45.31	16006	126.51	64880	254.72	3917	62.59	2964	54.44	1203	34.68
*C-2_*	49	3962	62.94	2154	46.41	15971	126.38	64688	254.34	3973	63.03	2949	54.30	1217	34.89
*C-2_*	50	3903	62.47	2072	45.52	15770	125.58	64967	254.89	4038	63.55	2887	53.73	1180	34.35
*C-2_*	51	3983	63.11	1992	44.63	15741	125.46	65049	255.05	4064	63.75	3002	54.79	1222	34.96
*C-2_*	52	3910	62.53	2126	46.11	15936	126.24	64929	254.81	3995	63.21	3058	55.30	1219	34.91
*C-2_*	53	3979	63.08	2020	44.94	15755	125.52	64599	254.16	3974	63.04	2920	54.04	1158	34.03
*C-2_*	54	3777	61.46	2043	45.20	15850	125.90	65275	255.49	3964	62.96	2837	53.26	1189	34.48
*C-2_*	55	3878	62.27	2078	45.59	15482	124.43	65418	255.77	3949	62.84	3006	54.83	1245	35.28
*C-2_*	56	3830	61.89	2067	45.46	15624	125.00	65047	255.04	4067	63.77	2970	54.50	1172	34.23
*C-2_*	57	3848	62.03	2016	44.90	15787	125.65	65041	255.03	4060	63.72	2947	54.29	1175	34.28
*C-2_*	58	3784	61.51	2025	45.00	15713	125.35	65412	255.76	4081	63.88	2951	54.32	1149	33.90
*C-2_*	59	3914	62.56	2058	45.37	15637	125.05	64780	254.52	4041	63.57	2884	53.70	1174	34.26

EA4_11

C-2_	60	3807	61.70	2046	45.23	15569	124.78	65238	255.42	3975	63.05	2948	54.30	1216	34.87
C-2_	61	3858	62.11	2033	45.09	15658	125.13	65246	255.43	4063	63.74	2986	54.64	1203	34.68
C-2_	62	3894	62.40	1998	44.70	15796	125.68	65281	255.50	3946	62.82	3034	55.08	1203	34.68
C-2_	63	3866	62.18	2001	44.73	15687	125.25	65098	255.14	4000	63.25	2994	54.72	1213	34.83
C-2_	64	3854	62.08	2025	45.00	15557	124.73	65363	255.66	4000	63.25	2873	53.60	1226	35.01
C-2_	65	3938	62.75	2093	45.75	15625	125.00	65155	255.25	4035	63.52	2844	53.33	1246	35.30
C-2_	66	3831	61.90	2049	45.27	15709	125.34	65455	255.84	4028	63.47	3017	54.93	1190	34.50
C-2_	67	3837	61.94	1972	44.41	15705	125.32	64823	254.60	4004	63.28	2977	54.56	1173	34.25
C-2_	68	3793	61.59	1978	44.47	15399	124.09	65784	256.48	3997	63.22	3029	55.04	1144	33.82
C-2_	69	3714	60.94	1985	44.55	15583	124.83	65555	256.04	3981	63.10	2979	54.58	1219	34.91
C-2_	70	3862	62.14	2015	44.89	15819	125.77	65704	256.33	3966	62.98	2962	54.42	1153	33.96
C-2_	71	3871	62.22	2038	45.14	15917	126.16	65399	255.73	4013	63.35	2987	54.65	1207	34.74
C-2_	72	3841	61.98	2030	45.06	15924	126.19	65380	255.70	3939	62.76	2940	54.22	1176	34.29
C-2_	73	3917	62.59	2044	45.21	15725	125.40	65453	255.84	4024	63.44	2870	53.57	1171	34.22
C-2_	74	3840	61.97	2097	45.79	15616	124.96	65038	255.03	4008	63.31	2966	54.46	1172	34.23
C-2_	75	3876	62.26	2016	44.90	15679	125.22	65641	256.20	3990	63.17	2940	54.22	1266	35.58
C-2_	76	3835	61.93	2069	45.49	15483	124.43	65084	255.12	4017	63.38	3010	54.86	1180	34.35
C-2_	77	3875	62.25	2084	45.65	15622	124.99	65645	256.21	3923	62.63	2966	54.46	1259	35.48
C-2_	78	3918	62.59	2067	45.46	15656	125.12	64872	254.70	4140	64.34	2995	54.73	1245	35.28
C-2_	79	3826	61.85	2117	46.01	15500	124.50	65339	255.61	4043	63.58	2889	53.75	1187	34.45
C-2_	80	3933	62.71	2102	45.85	15547	124.69	65176	255.30	4041	63.57	2905	53.90	1253	35.40
C-2_	81	3854	62.08	2037	45.13	15617	124.97	65314	255.57	3989	63.16	2787	52.79	1091	33.03
C-2_	82	3717	60.97	2014	44.88	15682	125.23	65578	256.08	4117	64.16	2933	54.16	1225	35.00
C-2_	83	3855	62.09	2089	45.71	15462	124.35	65266	255.47	4046	63.61	2891	53.77	1183	34.39
C-2_	84	3873	62.23	1968	44.36	15552	124.71	65053	255.05	3948	62.83	2899	53.84	1209	34.77
C-2_	85	3854	62.08	2019	44.93	15409	124.13	64960	254.87	4050	63.64	2884	53.70	1155	33.99
C-2_	86	3839	61.96	2095	45.77	15672	125.19	65697	256.31	4002	63.26	2933	54.16	1197	34.60
C-2_	87	3898	62.43	2059	45.38	15721	125.38	65577	256.08	3953	62.87	2898	53.83	1229	35.06
C-2_	88	3800	61.64	2003	44.75	15583	124.83	65173	255.29	3965	62.97	2956	54.37	1201	34.66
C-2_	89	3974	63.04	1989	44.60	15685	125.24	65344	255.62	4091	63.96	2936	54.18	1201	34.66
C-2_	90	3919	62.60	2029	45.04	15426	124.20	65527	255.98	3949	62.84	2973	54.53	1199	34.63
C-2_	91	3817	61.78	2060	45.39	15761	125.54	65082	255.11	3983	63.11	2895	53.81	1187	34.45
C-2_	92	3841	61.98	2084	45.65	15316	123.76	65842	256.60	4044	63.59	2905	53.90	1218	34.90
C-2_	93	3756	61.29	2021	44.96	15353	123.91	65521	255.97	3960	62.93	2971	54.51	1172	34.23
C-2_	94	3865	62.17	2018	44.92	15335	123.83	65600	256.12	3926	62.66	2907	53.92	1114	33.38
C-2_	95	3868	62.19	2021	44.96	15336	123.84	65459	255.85	3978	63.07	2941	54.23	1202	34.67
C-2_	96	3815	61.77	2033	45.09	15349	123.89	65654	256.23	3990	63.17	2934	54.17	1193	34.54
C-2_	97	3742	61.17	2043	45.20	15507	124.53	65444	255.82	4002	63.26	2919	54.03	1232	35.10
C-2_	98	3854	62.08	2048	45.25	15360	123.94	65592	256.11	4069	63.79	2934	54.17	1208	34.76
C-2_	99	3887	62.35	2065	45.44	15254	123.51	65710	256.34	4005	63.29	2906	53.91	1236	35.16
C-2_	100	3795	61.60	1964	44.32	15415	124.16	65907	256.72	3844	62.00	2858	53.46	1167	34.16
C-2_	101	3917	62.59	2022	44.97	15256	123.52	65860	256.63	4001	63.25	2953	54.34	1183	34.39
C-2_	102	3808	61.71	2017	44.91	15432	124.23	65653	256.23	4048	63.62	2936	54.18	1213	34.83
C-2_	103	3766	61.37	2063	45.42	15389	124.05	65888	256.69	4135	64.30	2853	53.41	1201	34.66
C-2_	104	3850	62.05	1992	44.63	15421	124.18	65821	256.56	4003	63.27	2954	54.35	1163	34.10
C-2_	105	3856	62.10	2046	45.23	15403	124.11	65905	256.72	3982	63.10	2928	54.11	1181	34.37
C-2_	106	3794	61.60	2032	45.08	15220	123.37	65739	256.40	4127	64.24	2893	53.79	1163	34.10
C-2_	107	3822	61.82	2021	44.96	15443	124.27	65870	256.65	4118	64.17	2937	54.19	1161	34.07
C-2_	108	3773	61.42	1947	44.12	15230	123.41	66082	257.06	4018	63.39	2863	53.51	1238	35.19
C-2_	109	3795	61.60	2062	45.41	15215	123.35	65754	256.43	4125	64.23	2925	54.08	1186	34.44
C-2_	110	3930	62.69	2015	44.89	15263	123.54	66051	257.00	3918	62.59	2890	53.76	1178	34.32
C-2_	111	3707	60.89	2073	45.53	15438	124.25	65416	255.77	3930	62.69	2902	53.87	1192	34.53
C-2_	112	3713	60.93	1969	44.37	15297	123.68	65493	255.92	4059	63.71	2874	53.61	1208	34.76
C-2_	113	3739	61.15	2044	45.21	14979	122.39	66118	257.13	4067	63.77	2858	53.46	1138	33.73
C-2_	114	3811	61.73	2048	45.25	15326	123.80	66068	257.04	3946	62.82	2918	54.02	1229	35.06
C-2_	115	3700	60.83	1973	44.42	15073	122.77	65925	256.76	4027	63.46	2897	53.82	1163	34.10
C-2_	116	3863	62.15	1984	44.54	15426	124.20	65673	256.27	3990	63.17	2927	54.10	1153	33.96
C-2_	117	3741	61.16	2020	44.94	15239	123.45	66054	257.01	4011	63.33	2893	53.79	1141	33.78
C-2_	118	3777	61.46	1972	44.41	15413	124.15	65858	256.63	3841	61.98	2789	52.81	1168	34.18
C-2_	119	3889	62.36	1974	44.43	15440	124.26	65701	256.32	3971	63.02	2854	53.42	1157	34.01
C-2_	120	3770	61.40	1934	43.98	15183	123.22	65721	256.36	4002	63.26	2954	54.35	1147	33.87
C-2_	121	3878	62.27	1959	44.26	15157	123.11	66114	257.13	4059	63.71	2897	53.82	1184	34.41
C-2_	122	3711	60.92	2009	44.82	15231	123.41	65540	256.01	4034	63.51	2850	53.39	1131	33.63
C-2_	123	3807	61.70	2013	44.87	14973	122.36	66248	257.39	4055	63.68	2913	53.97	1220	34.93
C-2_	124	3805	61.68	1963	44.31	15228	123.40	66293	257.47	4032	63.50	2859	53.47	1196	34.58
C-2_	125	3839	61.96	1979	44.49	15142	123.05	65994	256.89	3914	62.56	2950	54.31	1228	35.04
C-2_	126	3804	61.68	1928	43.91	15113	122.93	66446	257.77	4100	64.03	2843	53.32	1169	34.19
C-2_	127	3788	61.55	1966	44.34	15184	123.22	65609	256.14	3979	63.08	2866	53.54	1220	34.93
C-2_	128	3760	61.32	1916	43.77	14961	122.32	65556	256.04	3953	62.87	2842	53.31	1231	35.09
C-2_	129	3857	62.10	2045	45.22	14938	122.22	65869	256.65	3950	62.85	2807	52.98	1165	34.13
C-2_	130	3835	61.93	1998	44.70	15102	122.89	65791	256.50	4030	63.48	2953	54.34	1173	34.25
C-2_	131	3673	60.61	1984	44.54	15165	123.15	66005	256.91	4043	63.58	2750	52.44	1155	33.99
C-2_	132	3797	61.62	1962	44.29	15313	123.75	65761	256.44	4084	63.91	2823	53.13	1174	34.26
C-2_	133	3808	61.71	2014	44.88	14699	121.24	65834	256.58	3891	62.38	2958	54.39	1246	35.30
C-2_	134	3784	61.51	2000	44.72	15070	122.76	66151	257.20	4061	63.73	2848	53.37	1232	35.10
C-2_	135	3846	62.02	2080	45.61	14789	121.61	65870	256.65	3933	62.71	2862	53.50	1194	34.55
C-2_	136	3803	61.67	1944	44.09	15323	123.79	66256	257.40	4019	63.40	2923	54.06	1134	33.67
C-2_	137	3751	61.25	2073	45.53	15000	122.47	66133	257.16	4139	64.34	2904	53.89	1180	34.35
C-2_	138	3856	62.10	1959	44.26	15277	123.60	65688	256.30	3930	62.69	2862	53.50	1149	33.90
C-2_	139	3792	61.58	2023	44.98	15282	123.62	65511	255.95	3979	63.08	2933	54.16	1175	34.28
C-2_	140	3801	61.65	2049	45.27	15140	123.04	66175	257.25	3978	63.07	2804	52.95	1225	35.00
C-2_	141	3735	61.11	2017	44.91	15168	123.16	65886	256.68	3974	63.04	2884	53.70	1220	34.93
C-2_	142	3691	60.75	2010	44.83	15141	123.05	65961	256.83	4055	63.68	2789	52.81	1160	34.06
C-2_	143	3795	61.60	1992	44.63	14911	122.11	65855	256.62	4011	63.33	2943	54.25	1195	34.57
C-2_	144	3781	61.49	1979	44.49	15088	122.83	65912	256.73	4062	63.73	2946	54.28	1198	34.61
C-2_	145	3711	60.92	2037	45.13	15292	123.66	65509	255.95	4095	63.99	2898	53.83	1179	34.34
C-2_	146	3844	62.00	1959	44.26	15216	123.35	65683	256.29	4143	64.37	2908	53.93	1211	34.80
C-2_	147	3810	61.73	1988	44.59	15366	123.96	65729	256.38	3918	62.59	2891	53.77	1203	34.68
C-2_	148	3797	61.62	2054	45.32	15072	122.77	65914	256.74	3982	63.10	2830	53.20	1185	34.42
C-2_	149	3933	62.71	2008	44.81	15181	123.21	65886	256.68	3965	62.97	2901	53.86	1091	33.03
C-2_	150	3885	62.33	2041	45.18	15030	122.60	65944	256.80	4096	64.00	2852	53.40	1159	34.04
C-2_	151	3697	60.80	2064	45.43	15256	123.52	65983	256.87	4067	63.77	2785	52.77	1169	34.19
C-2_	152	3790	61.56	2080	45.61	15333	123.83	66015	256.93	4096	64.00	2910	53.94	1244	35.27

EA4_12

*C-2_*	153	3830	61.89	1961	44.28	15213	123.34	65950	256.81	4021	63.41	2895	53.81	1210	34.79
*C-2_*	154	3820	61.81	2015	44.89	15307	123.72	65697	256.31	3986	63.13	2881	53.67	1202	34.67
*C-2_*	155	3715	60.95	1986	44.56	15290	123.65	65928	256.76	4039	63.55	2853	53.41	1184	34.41
*C-2_*	156	3835	61.93	1972	44.41	14976	122.38	66118	257.13	4092	63.97	2853	53.41	1215	34.86
*C-2_*	157	3827	61.86	2014	44.88	15195	123.27	65930	256.77	3953	62.87	2848	53.37	1160	34.06
*C-2_*	158	3818	61.79	2026	45.01	14959	122.31	65591	256.11	4014	63.36	2836	53.25	1190	34.50
*C-2_*	159	3770	61.40	2132	46.17	15308	123.73	65831	256.58	4077	63.85	2853	53.41	1172	34.23
*C-2_*	160	3769	61.39	1950	44.16	15145	123.07	65726	256.37	4064	63.75	2868	53.55	1156	34.00
*C-2_*	161	3780	61.48	2043	45.20	15078	122.79	65362	255.66	4140	64.34	2815	53.06	1202	34.67
*C-2_*	162	3742	61.17	2050	45.28	15087	122.83	66145	257.19	3998	63.23	2775	52.68	1180	34.35
*C-2_*	163	3824	61.84	1991	44.62	15155	123.11	66229	257.35	4108	64.09	2893	53.79	1206	34.73
*C-2_*	164	3667	60.56	2027	45.02	15121	122.97	65787	256.49	3994	63.20	2875	53.62	1210	34.79
*C-2_*	165	3807	61.70	2008	44.81	15178	123.20	65970	256.85	4077	63.85	2809	53.00	1190	34.50
*C-2_*	166	3773	61.42	1966	44.34	14799	121.65	65913	256.74	4039	63.55	2837	53.26	1179	34.34
*C-2_*	167	3794	61.60	1930	43.93	15041	122.64	66007	256.92	4027	63.46	2791	52.83	1226	35.01
*C-2_*	168	3796	61.61	2012	44.86	15076	122.78	66060	257.02	4186	64.70	2832	53.22	1205	34.71
*C-2_*	169	3659	60.49	1930	43.93	15109	122.92	65783	256.48	4111	64.12	2860	53.48	1165	34.13
*C-2_*	170	3758	61.30	1999	44.71	15095	122.86	65697	256.31	3949	62.84	2859	53.47	1225	35.00
*C-2_*	171	3828	61.87	2020	44.94	15007	122.50	65684	256.29	4062	63.73	2788	52.80	1189	34.48
*C-2_*	172	3895	62.41	2045	45.22	15115	122.94	65855	256.62	4086	63.92	2910	53.94	1187	34.45
*C-2_*	173	3817	61.78	2021	44.96	15034	122.61	65631	256.19	3943	62.79	2876	53.63	1164	34.12
*C-2_*	174	3790	61.56	2033	45.09	15232	123.42	65894	256.70	3950	62.85	2793	52.85	1206	34.73
*C-2_*	175	3795	61.60	2010	44.83	15141	123.05	65552	256.03	4013	63.35	2826	53.16	1210	34.79
*C-2_*	176	3696	60.79	1999	44.71	15067	122.75	65834	256.58	4099	64.02	2801	52.92	1192	34.53
*C-2_*	177	3745	61.20	1953	44.19	15123	122.98	65915	256.74	4078	63.86	2777	52.70	1219	34.91
*C-2_*	178	3831	61.90	2012	44.86	14977	122.38	66224	257.34	4109	64.10	2809	53.00	1155	33.99
*C-2_*	179	3873	62.23	1989	44.60	14918	122.14	66009	256.92	4137	64.32	2904	53.89	1203	34.68
*C-2_*	180	3679	60.65	2008	44.81	14904	122.08	65437	255.81	4158	64.48	2862	53.50	1232	35.10
*C-2_*	181	3835	61.93	1993	44.64	15004	122.49	66117	257.13	4006	63.29	2857	53.45	1198	34.61
*C-2_*	182	3630	60.25	2037	45.13	14933	122.20	66164	257.22	4010	63.32	2900	53.85	1207	34.74
*C-2_*	183	3732	61.09	2066	45.45	14603	120.84	66041	256.98	4167	64.55	2869	53.56	1140	33.76
*C-2_*	184	3747	61.21	2020	44.94	14739	121.40	66074	257.05	3992	63.18	2820	53.10	1109	33.30
*C-2_*	185	3751	61.25	1902	43.61	14740	121.41	66024	256.95	4084	63.91	2831	53.21	1194	34.55
*C-2_*	186	3619	60.16	1972	44.41	14739	121.40	66399	257.68	4162	64.51	2812	53.03	1139	33.75
*C-2_*	187	3633	60.27	1996	44.68	14538	120.57	66864	258.58	4032	63.50	2612	51.11	1191	34.51
*C-2_*	188	3625	60.21	1921	43.83	14411	120.05	66652	258.17	4204	64.84	2802	52.93	1190	34.50
*C-2_*	189	3522	59.35	2036	45.12	14069	118.61	66596	258.06	4100	64.03	2628	51.26	1109	33.30
*C-2_*	190	3483	59.02	2054	45.32	13956	118.14	67545	259.89	4148	64.40	2565	50.65	1181	34.37
*C-2_*	191	3623	60.19	1985	44.55	13705	117.07	67232	259.29	4282	65.44	2533	50.33	1106	33.26
*C-2_*	192	3412	58.41	1918	43.79	13328	115.45	68150	261.06	4284	65.45	2420	49.19	1092	33.05
*C-2_*	193	3597	59.97	1941	44.06	13099	114.45	68432	261.60	4345	65.92	2296	47.92	1079	32.85
*C-2_*	194	3696	60.79	1928	43.91	12918	113.66	68387	261.51	4585	67.71	1959	44.26	1073	32.76
*C-2_*	195	3822	61.82	1877	43.32	12831	113.27	68669	262.05	4927	70.19	1899	43.58	1069	32.70
*C-2_*	196	4360	66.03	1887	43.44	12589	112.20	69048	262.77	5158	71.82	1884	43.41	981	31.32
*C-2_*	197	4844	69.60	1821	42.67	11257	106.10	68746	262.19	5042	71.01	2246	47.39	1056	32.50
*C-2_*	198	4982	70.58	1780	42.19	7649	87.46	71259	266.94	4567	67.58	2780	52.73	1555	39.43
*C-2_*	199	4849	69.63	1690	41.11	7281	85.33	71271	266.97	4492	67.02	2398	48.97	1629	40.36
*C-2_*	200	5016	70.82	1729	41.58	7802	88.33	71316	267.05	4735	68.81	2135	46.21	1593	39.91
*C-2_*	201	5237	72.37	1644	40.55	9030	95.03	70015	264.60	4859	69.71	1912	43.73	1545	39.31
*C-2_*	202	5434	73.72	1683	41.02	9960	99.80	69294	263.24	5089	71.34	1782	42.21	1457	38.17
*C-2_*	203	5435	73.72	1794	42.36	10365	101.81	69212	263.08	5160	71.83	1791	42.32	1478	38.44
*C-2_*	204	5453	73.84	1732	41.62	10577	102.84	69118	262.90	5112	71.50	1774	42.12	1532	39.14
*C-2_*	205	5586	74.74	1693	41.15	11009	104.92	68103	260.97	5222	72.26	1773	42.11	1503	38.77
*C-2_*	206	5669	75.29	1781	42.20	11028	105.01	68168	261.09	5251	72.46	1703	41.27	1457	38.17
*C-2_*	207	5441	73.76	1738	41.69	11259	106.11	67971	260.71	5374	73.31	1690	41.11	1471	38.35
*C-2_*	208	5472	73.97	1754	41.88	11782	108.54	67560	259.92	5468	73.95	1672	40.89	1407	37.51
*C-2_*	209	5458	73.88	1647	40.58	11927	109.21	67314	259.45	5546	74.47	1699	41.22	1352	36.77
*C-2_*	210	5339	73.07	1687	41.07	12462	111.63	66621	258.11	5557	74.55	1602	40.02	1360	36.88
*C-2_*	211	5540	74.43	1567	39.59	12631	112.39	66807	258.47	5548	74.48	1596	39.95	1214	34.84
*C-2_*	212	5476	74.00	1619	40.24	12835	113.29	66680	258.22	5574	74.66	1633	40.41	1257	35.45
*C-2_*	213	5379	73.34	1626	40.32	13143	114.64	67116	259.07	5644	75.13	1636	40.45	1230	35.07
*C-2_*	214	5341	73.08	1638	40.47	13072	114.33	66751	258.36	5613	74.92	1590	39.87	1281	35.79
*C-2_*	215	5360	73.21	1647	40.58	12854	113.38	66827	258.51	5506	74.20	1540	39.24	1230	35.07
*C-2_*	216	5245	72.42	1664	40.79	12384	111.28	67634	260.07	5380	73.35	1472	38.37	1257	35.45
*C-2_*	217	5305	72.84	1569	39.61	12056	109.80	67391	259.60	5362	73.23	1550	39.37	1258	35.47
*C-3_*	1	6468	80.42	2526	50.26	7811	88.38	35512	188.45	3482	59.01	2264	47.58	1029	32.08
*C-3_*	2	8081	89.89	2226	47.18	10251	101.25	56537	237.78	5249	72.45	3001	54.78	1316	36.28
*C-3_*	3	7552	86.90	2156	46.43	11180	105.74	61599	248.19	5624	74.99	3208	56.64	1311	36.21
*C-3_*	4	7266	85.24	2224	47.16	11470	107.10	63200	251.40	5734	75.72	3296	57.41	1318	36.30
*C-3_*	5	7151	84.56	2168	46.56	11781	108.54	63521	252.03	5679	75.36	3177	56.36	1308	36.17
*C-3_*	6	6963	83.44	2134	46.20	11623	107.81	64695	254.35	5774	75.99	3009	54.85	1318	36.30
*C-3_*	7	6882	82.96	2102	45.85	11690	108.12	64782	254.52	5773	75.98	2941	54.23	1260	35.50
*C-3_*	8	6912	83.14	2194	46.84	12151	110.23	64839	254.64	5734	75.72	2902	53.87	1229	35.06
*C-3_*	9	6881	82.95	2065	45.44	11890	109.04	64591	254.15	5712	75.58	2826	53.16	1179	34.34
*C-3_*	10	6741	82.10	2103	45.86	12162	110.28	65380	255.70	5639	75.09	2768	52.61	1206	34.73
*C-3_*	11	6460	80.37	2061	45.40	12387	111.30	65750	256.42	5724	75.66	2640	51.38	1113	33.36
*C-3_*	12	6541	80.88	2015	44.89	12519	111.89	65580	256.09	5910	76.88	2601	51.00	1181	34.37
*C-3_*	13	6482	80.51	1923	43.85	12716	112.77	66306	257.50	5888	76.73	2565	50.65	1076	32.80
*C-3_*	14	6402	80.01	1929	43.92	12889	113.53	66014	256.93	5794	76.12	2475	49.75	1099	33.15
*C-3_*	15	6305	79.40	1951	44.17	12911	113.63	66399	257.68	5863	76.57	2577	50.76	1053	32.45
*C-3_*	16	6291	79.32	1902	43.61	13214	114.95	65995	256.89	5912	76.89	2464	49.64	1090	33.02
*C-3_*	17	6121	78.24	1945	44.10	13404	115.78	65835	256.58	5887	76.73	2551	50.51	1046	32.34
*C-3_*	18	6057	77.83	1952	44.18	13266	115.18	66112	257.12	5980	77.33	2419	49.18	1056	32.50
*C-3_*	19	6123	78.25	1994	44.65	13515	116.25	66463	257.80	5987	77.38	2412	49.11	1053	32.45
*C-3_*	20	6053	77.80	1983	44.53	13770	117.35	66152	257.20	5924	76.97	2422	49.21	1073	32.76
*C-3_*	21	5944	77.10	1937	44.01	13896	117.88	66272	257.43	5798	76.14	2410	49.09	1038	32.22
*C-3_*	22	5973	77.29	1932	43.95	13752	117.27	66171	257.24	5849	76.48	2343	48.40	1051	32.42
*C-3_*	23	5921	76.95	1966	44.34	13951	118.11	66052	257.01	5991	77.40	2320	48.17	1077	32.82
*C-3_*	24	6007	77.50	1980	44.50	14146	118.94	65791	256.50	6001	77.47	2397	48.96	1078	32.83
*C-3_*	25	5936	77.05	1915	43.76	14165	119.02	66372	257.63	5871	76.62	2445	49.45	1008	31.75
*C-3_*	26	5943	77.09	1999	44.71	14134	118.89	65998	256.90	6035	77.69	2365	48.63	1096	33.11
*C-3_*	27	5787	76.07	1907	43.67	14410	120.04	65858	256.63	5998	77.45	2276	47.71	1111	33.33
*C-3_*	28	5793	76.11	2002	44.74	14213	119.22	65935	256.78	6021	77.60	2314	48.10	1107	33.27

EA4_13

C-3_	29	5845	76.45	2013	44.87	14329	119.70	65817	256.55	5982	77.34	2320	48.17	1025	32.02
C-3_	30	5807	76.20	1949	44.15	14177	119.07	65985	256.88	5929	77.00	2319	48.16	1109	33.30
C-3_	31	5718	75.62	1958	44.25	14381	119.92	66439	257.76	5965	77.23	2446	49.46	1091	33.03
C-3_	32	5970	77.27	1939	44.03	14609	120.87	66020	256.94	6020	77.59	2363	48.61	1125	33.54
C-3_	33	5735	75.73	1954	44.20	14230	119.29	66396	257.67	6035	77.69	2348	48.46	1067	32.66
C-3_	34	5710	75.56	1956	44.23	14498	120.41	65655	256.23	6056	77.82	2395	48.94	1095	33.09
C-3_	35	5713	75.58	1934	43.98	14539	120.58	66558	257.99	5951	77.14	2329	48.26	1109	33.30
C-3_	36	5690	75.43	1845	42.95	14441	120.17	65852	256.62	5987	77.38	2411	49.10	1109	33.30
C-3_	37	5759	75.89	1907	43.67	14553	120.64	65807	256.53	5904	76.84	2414	49.13	1062	32.59
C-3_	38	5775	75.99	1993	44.64	14612	120.88	66053	257.01	5964	77.23	2514	50.14	1097	33.12
C-3_	39	5623	74.99	1967	44.35	14397	119.99	66235	257.36	5987	77.38	2393	48.92	1108	33.29
C-3_	40	5620	74.97	1893	43.51	14439	120.16	65938	256.78	5990	77.40	2273	47.68	1045	32.33
C-3_	41	5724	75.66	1980	44.50	14645	121.02	66420	257.72	6000	77.46	2380	48.79	1059	32.54
C-3_	42	5763	75.91	1999	44.71	14411	120.05	66630	258.13	5900	76.81	2400	48.99	1064	32.62
C-3_	43	5634	75.06	1935	43.99	14504	120.43	66308	257.50	5947	77.12	2292	47.87	1108	33.29
C-3_	44	5803	76.18	1911	43.71	14260	119.42	66292	257.47	5909	76.87	2415	49.14	1152	33.94
C-3_	45	5674	75.33	1990	44.61	14396	119.98	67147	259.13	6034	77.68	2401	49.00	1107	33.27
C-3_	46	5650	75.17	1953	44.19	14137	118.90	66643	258.15	5948	77.12	2438	49.38	1121	33.48
C-3_	47	5575	74.67	1959	44.26	14336	119.73	66296	257.48	5978	77.32	2434	49.34	1085	32.94
C-3_	48	5562	74.58	1965	44.33	14441	120.17	66045	256.99	6094	78.06	2355	48.53	1093	33.06
C-3_	49	5656	75.21	2029	45.04	14561	120.67	66717	258.30	5905	76.84	2444	49.44	1160	34.06
C-3_	50	5655	75.20	2007	44.80	14440	120.17	66601	258.07	6012	77.54	2323	48.20	1123	33.51
C-3_	51	5665	75.27	2000	44.72	14454	120.22	67003	258.85	5873	76.64	2473	49.73	1090	33.02
C-3_	52	5483	74.05	1959	44.26	14520	120.50	66767	258.39	5854	76.51	2433	49.33	1153	33.96
C-3_	53	5712	75.58	1960	44.27	14374	119.89	66498	257.87	5960	77.20	2434	49.34	1113	33.36
C-3_	54	5773	75.98	1875	43.30	14310	119.62	66071	257.04	5986	77.37	2466	49.66	1138	33.73
C-3_	55	5827	76.33	1963	44.31	14295	119.56	66345	257.58	6038	77.70	2492	49.92	1078	32.83
C-3_	56	5756	75.87	2006	44.79	14355	119.81	66749	258.36	5994	77.42	2439	49.39	1074	32.77
C-3_	57	5903	76.83	2006	44.79	14226	119.27	66645	258.16	5942	77.08	2314	48.10	1088	32.98
C-3_	58	5781	76.03	1961	44.28	14297	119.57	66903	258.66	6122	78.24	2487	49.87	1166	34.15
C-3_	59	5861	76.56	2049	45.27	14056	118.56	66417	257.71	5902	76.82	2430	49.30	1159	34.04
C-3_	60	5688	75.42	1962	44.29	13949	118.11	66630	258.13	6078	77.96	2508	50.08	1153	33.96
C-3_	61	5776	76.00	2081	45.62	14227	119.28	66996	258.84	6060	77.85	2440	49.40	1137	33.72
C-3_	62	5802	76.17	1939	44.03	13854	117.70	66828	258.51	5870	76.62	2506	50.06	1139	33.75
C-3_	63	5944	77.10	2036	45.12	14097	118.73	66245	257.38	5873	76.64	2500	50.00	1114	33.38
C-3_	64	5790	76.09	1962	44.29	13872	117.78	67123	259.08	6034	77.68	2624	51.22	1175	34.28
C-3_	65	5881	76.69	1966	44.34	13902	117.91	66395	257.67	6240	78.99	2620	51.19	1165	34.13
C-3_	66	5761	75.90	2011	44.84	13859	117.72	66573	258.02	5931	77.01	2538	50.38	1124	33.53
C-3_	67	5864	76.58	2027	45.02	13702	117.06	66887	258.63	6124	78.26	2516	50.16	1176	34.29
C-3_	68	5883	76.70	2032	45.08	13902	117.91	67190	259.21	5977	77.31	2584	50.83	1168	34.18
C-3_	69	5882	76.69	1995	44.67	13643	116.80	67217	259.26	5979	77.32	2512	50.12	1142	33.79
C-3_	70	5796	76.13	1958	44.25	13779	117.38	66917	258.68	6105	78.13	2560	50.60	1173	34.25
C-3_	71	5831	76.36	2067	45.46	13819	117.55	67048	258.94	5960	77.20	2591	50.90	1126	33.56
C-3_	72	5826	76.33	1953	44.19	13664	116.89	66711	258.28	5979	77.32	2670	51.67	1098	33.14
C-3_	73	5862	76.56	2025	45.00	13729	117.17	67018	258.88	5980	77.33	2669	51.66	1238	35.19
C-3_	74	5957	77.18	2018	44.92	13771	117.35	66910	258.67	6022	77.60	2707	52.03	1139	33.75
C-3_	75	5874	76.64	1969	44.37	13748	117.25	66914	258.68	6001	77.47	2574	50.73	1150	33.91
C-3_	76	5950	77.14	1993	44.64	13935	118.05	66944	258.74	5920	76.94	2593	50.92	1114	33.38
C-3_	77	5929	77.00	1978	44.47	13972	118.20	66924	258.70	6065	77.88	2598	50.97	1074	32.77
C-3_	78	5846	76.46	1982	44.52	13977	118.22	66849	258.55	5848	76.47	2652	51.50	1185	34.42
C-3_	79	6049	77.78	1968	44.36	14025	118.43	66995	258.83	6006	77.50	2618	51.17	1128	33.59
C-3_	80	5875	76.65	2006	44.79	14114	118.80	66828	258.51	6038	77.70	2565	50.65	1153	33.96
C-3_	81	6031	77.66	2044	45.21	14026	118.43	66568	258.01	6024	77.61	2557	50.57	1154	33.97
C-3_	82	5893	76.77	1943	44.08	13922	117.99	66981	258.81	6136	78.33	2546	50.46	1142	33.79
C-3_	83	5978	77.32	1980	44.50	13969	118.19	66729	258.32	6156	78.46	2535	50.35	1130	33.62
C-3_	84	6045	77.75	1990	44.61	13997	118.31	66719	258.30	5989	77.39	2522	50.22	1136	33.70
C-3_	85	6010	77.52	1880	43.36	14385	119.94	66293	257.47	6098	78.09	2559	50.59	1100	33.17
C-3_	86	6112	78.18	1979	44.49	14308	119.62	66544	257.96	6159	78.48	2512	50.12	1147	33.87
C-3_	87	6056	77.82	2111	45.95	14286	119.52	66579	258.03	6042	77.73	2533	50.33	1160	34.06
C-3_	88	6272	79.20	1976	44.45	14513	120.47	66662	258.19	6146	78.40	2518	50.18	1057	32.51
C-3_	89	6164	78.51	1957	44.24	14399	120.00	66188	257.27	5987	77.38	2589	50.88	1146	33.85
C-3_	90	6367	79.79	1985	44.55	14364	119.85	65942	256.79	6031	77.66	2635	51.33	1141	33.78
C-3_	91	6230	78.93	1991	44.62	14359	119.83	65902	256.71	6063	77.87	2660	51.58	1105	33.24
C-3_	92	6500	80.62	2037	45.13	13999	118.32	66386	257.65	6100	78.10	2702	51.98	1160	34.06
C-3_	93	6442	80.26	2064	45.43	13953	118.12	66267	257.42	5968	77.25	2653	51.51	1182	34.38
C-3_	94	6301	79.38	2017	44.91	13949	118.11	66344	257.57	5924	76.97	2787	52.79	1155	33.99
C-3_	95	6380	79.87	2122	46.07	13660	116.88	65898	256.71	5869	76.61	2974	54.53	1225	35.00
C-3_	96	6529	80.80	2136	46.22	13341	115.50	65900	256.71	5805	76.19	3122	55.87	1139	33.75
C-3_	97	6462	80.39	2030	45.06	13339	115.49	65674	256.27	5778	76.01	3236	56.89	1377	37.11
C-3_	98	6159	78.48	2067	45.46	12906	113.60	66026	256.96	5753	75.85	3120	55.86	1441	37.96
C-3_	99	5790	76.09	2184	46.73	11490	107.19	67913	260.60	5547	74.48	3259	57.09	1626	40.32
C-3_	100	5431	73.70	2225	47.17	10561	102.77	69078	262.83	5302	72.81	2865	53.53	1553	39.41
C-3_	101	5489	74.09	2090	45.72	13166	114.74	67564	259.93	5669	75.29	2613	51.12	1280	35.78
C-3_	102	5287	72.71	2007	44.80	14705	121.26	66375	257.63	5902	76.82	2513	50.13	1284	35.83
C-3_	103	5121	71.56	2024	44.99	14965	122.33	66474	257.83	5609	74.89	2357	48.55	1204	34.70
C-3_	104	4933	70.24	2045	45.22	14680	121.16	66402	257.69	5579	74.69	2230	47.22	1155	33.99
C-3_	105	4609	67.89	2040	45.17	15172	123.17	66745	258.35	5549	74.49	2362	48.60	1196	34.58
C-3_	106	4667	68.32	2043	45.20	15586	124.84	66364	257.61	5425	73.65	2309	48.05	1212	34.81
C-3_	107	4690	68.48	2034	45.10	16065	126.75	65464	255.86	5510	74.23	2392	48.91	1269	35.62
C-3_	108	4523	67.25	2112	45.96	16244	127.45	65540	256.01	5501	74.17	2314	48.10	1226	35.01
D-1_	1	3403	58.34	1871	43.26	12962	113.85	60900	246.78	4188	64.71	1999	44.71	1139	33.75
D-1_	2	4246	65.16	2034	45.10	13656	116.86	59319	243.55	4948	70.34	1985	44.55	1110	33.32
D-1_	3	4413	66.43	2037	45.13	13668	116.91	58817	242.52	4869	69.78	1884	43.41	1125	33.54
D-1_	4	4544	67.41	2031	45.07	13837	117.63	59153	243.21	4864	69.74	1766	42.02	1197	34.60
D-1_	5	4278	65.41	2039	45.16	14032	118.46	58762	242.41	4666	68.31	1888	43.45	1241	35.23
D-1_	6	4230	65.04	1973	44.42	13951	118.11	58331	241.52	4941	70.29	1917	43.78	1111	33.33
D-1_	7	4089	63.95	2045	45.22	14029	118.44	58962	242.82	4763	69.01	1880	43.36	1198	34.61
D-1_	8	4124	64.22	2052	45.30	14016	118.39	58624	242.12	4790	69.21	1892	43.50	1201	34.66
D-1_	9	4041	63.57	1998	44.70	13970	118.19	58734	242.35	4801	69.29	1837	42.86	1180	34.35
D-1_	10	4091	63.96	2083	45.64	13975	118.22	58747	242.38	4706	68.60	2011	44.84	1178	34.32
D-1_	11	3953	62.87	1919	43.81	14051	118.54	58721	242.32	4637	68.10	1986	44.56	1165	34.13
D-1_	12	3874	62.24	2043	45.20	14122	118.84	58381	241.62	4708	68.61	2026	45.01	1146	33.85
D-1_	13	3897	62.43	2016	44.90	14266	119.44	58044	240.92	4637	68.10	2054	45.32	1215	34.86

*D-1_*	14	3875	62.25	1991	44.62	13849	117.68	58282	241.42	4627	68.02	1983	44.53	1194	34.55
*D-1_*	15	3773	61.42	1928	43.91	14283	119.51	58773	242.43	4652	68.21	2031	45.07	1156	34.00
*D-1_*	16	3752	61.25	1930	43.93	14263	119.43	59149	243.21	4601	67.83	1990	44.61	1172	34.23
*D-1_*	17	3829	61.88	1931	43.94	13924	118.00	58819	242.53	4783	69.16	2053	45.31	1210	34.79
*D-1_*	18	3893	62.39	1941	44.06	14167	119.03	58424	241.71	4649	68.18	1949	44.15	1178	34.32
*D-1_*	19	3779	61.47	1990	44.61	14115	118.81	58649	242.18	4626	68.01	1964	44.32	1185	34.42
*D-1_*	20	3817	61.78	1943	44.08	14210	119.21	58701	242.28	4581	67.68	1938	44.02	1177	34.31
*D-1_*	21	3748	61.22	1836	42.85	13855	117.71	58490	241.85	4485	66.97	1913	43.74	1215	34.86
*D-1_*	22	3719	60.98	1780	42.19	13960	118.15	58903	242.70	4538	67.36	2044	45.21	1178	34.32
*D-1_*	23	3688	60.73	1880	43.36	14374	119.89	58833	242.56	4510	67.16	1996	44.68	1181	34.37
*D-1_*	24	3764	61.35	1852	43.03	14217	119.24	58923	242.74	4625	68.01	1957	44.24	1125	33.54
*D-1_*	25	3784	61.51	1879	43.35	14010	118.36	59023	242.95	4551	67.46	1944	44.09	1074	32.77
*D-1_*	26	3764	61.35	1901	43.60	14194	119.14	59244	243.40	4597	67.80	1902	43.61	1136	33.70
*D-1_*	27	3691	60.75	1822	42.68	13962	118.16	58885	242.66	4577	67.65	1855	43.07	1123	33.51
*D-1_*	28	3706	60.88	1933	43.97	14091	118.71	59229	243.37	4612	67.91	1943	44.08	1119	33.45
*D-1_*	29	3692	60.76	1992	44.63	14085	118.68	58557	241.99	4639	68.11	1899	43.58	1136	33.70
*D-1_*	30	3727	61.05	1919	43.81	14048	118.52	58829	242.55	4575	67.64	1899	43.58	1124	33.53
*D-1_*	31	3665	60.54	1827	42.74	13875	117.79	59166	243.24	4616	67.94	1914	43.75	1111	33.33
*D-1_*	32	3560	59.67	1940	44.05	13866	117.75	58526	241.92	4594	67.78	1889	43.46	1122	33.50
*D-1_*	33	3601	60.01	1804	42.47	13905	117.92	58311	241.48	4641	68.12	1774	42.12	1137	33.72
*D-1_*	34	3585	59.87	1830	42.78	13978	118.23	59244	243.40	4570	67.60	1851	43.02	1140	33.76
*D-1_*	35	3693	60.77	1950	44.16	13939	118.06	59555	244.04	4544	67.41	1827	42.74	1111	33.33
*D-1_*	36	3675	60.62	1809	42.53	13997	118.31	59744	244.43	4500	67.08	1880	43.36	1080	32.86
*D-1_*	37	3548	59.57	1820	42.66	13892	117.86	59548	244.02	4527	67.28	1830	42.78	1109	33.30
*D-1_*	38	3527	59.39	1773	42.11	13998	118.31	59393	243.71	4542	67.39	1909	43.69	1089	33.00
*D-1_*	39	3672	60.60	1787	42.27	13911	117.94	59727	244.39	4501	67.09	1871	43.26	1055	32.48
*D-1_*	40	3595	59.96	1806	42.50	13808	117.51	60322	245.61	4492	67.02	1811	42.56	1118	33.44
*D-1_*	41	3709	60.90	1854	43.06	13613	116.67	60017	244.98	4488	66.99	1747	41.80	1079	32.85
*D-1_*	42	3586	59.88	1862	43.15	13698	117.04	59406	243.73	4497	67.06	1793	42.34	1096	33.11
*D-1_*	43	3631	60.26	1830	42.78	13747	117.25	60124	245.20	4426	66.53	1838	42.87	1087	32.97
*D-1_*	44	3504	59.19	1858	43.10	13581	116.54	60329	245.62	4453	66.73	1829	42.77	1115	33.39
*D-1_*	45	3537	59.47	1782	42.21	13758	117.29	60335	245.63	4512	67.17	1781	42.20	1029	32.08
*D-1_*	46	3503	59.19	1781	42.20	13598	116.61	59959	244.87	4454	66.74	1705	41.29	1041	32.26
*D-1_*	47	3550	59.58	1749	41.82	13418	115.84	59792	244.52	4461	66.79	1767	42.04	1019	31.92
*D-1_*	48	3482	59.01	1786	42.26	13422	115.85	60641	246.25	4342	65.89	1801	42.44	1051	32.42
*D-1_*	49	3521	59.34	1716	41.42	13315	115.39	60511	245.99	4422	66.50	1700	41.23	1012	31.81
*D-1_*	50	3415	58.44	1818	42.64	13316	115.39	60104	245.16	4446	66.68	1734	41.64	1015	31.86
*D-1_*	51	3360	57.97	1733	41.63	13298	115.32	60419	245.80	4366	66.08	1675	40.93	1122	33.50
*D-1_*	52	3363	57.99	1809	42.53	13503	116.20	60567	246.10	4385	66.22	1720	41.47	1045	32.33
*D-1_*	53	3436	58.62	1787	42.27	13447	115.96	60505	245.98	4409	66.40	1729	41.58	999	31.61
*D-1_*	54	3448	58.72	1761	41.96	13106	114.48	60037	245.02	4277	65.40	1764	42.00	1059	32.54
*D-1_*	55	3325	57.66	1730	41.59	13115	114.52	60730	246.43	4409	66.40	1722	41.50	1048	32.37
*D-1_*	56	3443	58.68	1740	41.71	13388	115.71	60503	245.97	4357	66.01	1724	41.52	1015	31.86
*D-1_*	57	3426	58.53	1783	42.23	13188	114.84	60742	246.46	4360	66.03	1640	40.50	1016	31.87
*D-1_*	58	3344	57.83	1831	42.79	13316	115.39	60926	246.83	4173	64.60	1702	41.26	1068	32.68
*D-1_*	59	3359	57.96	1788	42.28	13020	114.11	60693	246.36	4277	65.40	1746	41.79	1042	32.28
*D-1_*	60	3218	56.73	1756	41.90	13226	115.00	60619	246.21	4184	64.68	1674	40.91	993	31.51
*D-1_*	61	3307	57.51	1721	41.48	13118	114.53	60139	245.23	4192	64.75	1680	40.99	1016	31.87
*D-1_*	62	3289	57.35	1840	42.90	13068	114.32	60383	245.73	4254	65.22	1697	41.19	1094	33.08
*D-1_*	63	3319	57.61	1794	42.36	13237	115.05	60568	246.11	4392	66.27	1674	40.91	1050	32.40
*D-1_*	64	3344	57.83	1836	42.85	13041	114.20	60335	245.63	4195	64.77	1756	41.90	1021	31.95
*D-1_*	65	3318	57.60	1802	42.45	13171	114.76	60503	245.97	4273	65.37	1696	41.18	1042	32.28
*D-1_*	66	3204	56.60	1774	42.12	13202	114.90	61003	246.99	4247	65.17	1722	41.50	1002	31.65
*D-1_*	67	3224	56.78	1759	41.94	13087	114.40	60111	245.18	4087	63.93	1814	42.59	1020	31.94
*D-1_*	68	3281	57.28	1819	42.65	13235	115.04	60412	245.79	4146	64.39	1760	41.95	977	31.26
*D-1_*	69	3435	58.61	1744	41.76	13078	114.36	59620	244.17	4290	65.50	1739	41.70	1033	32.14
*D-1_*	70	3272	57.20	1702	41.26	13231	115.03	60023	245.00	4166	64.54	1721	41.48	1051	32.42
*D-1_*	71	3178	56.37	1877	43.32	13112	114.51	59910	244.77	4190	64.73	1745	41.77	999	31.61
*D-1_*	72	3204	56.60	1800	42.43	12985	113.95	60219	245.40	4129	64.26	1687	41.07	1075	32.79
*D-1_*	73	3058	55.30	1782	42.21	13009	114.06	60152	245.26	4145	64.38	1729	41.58	1043	32.30
*D-1_*	74	3173	56.33	1772	42.10	13013	114.07	60261	245.48	4142	64.36	1682	41.01	1024	32.00
*D-1_*	75	3193	56.51	1861	43.14	13020	114.11	60182	245.32	4085	63.91	1729	41.58	1042	32.28
*D-1_*	76	3163	56.24	1738	41.69	12875	113.47	60796	246.57	4050	63.64	1800	42.43	1053	32.45
*D-1_*	77	3167	56.28	1683	41.02	12793	113.11	60396	245.76	3956	62.90	1668	40.84	1012	31.81
*D-1_*	78	3208	56.64	1853	43.05	12897	113.56	60930	246.84	4098	64.02	1626	40.32	977	31.26
*D-1_*	79	3174	56.34	1721	41.48	12532	111.95	60832	246.64	4182	64.67	1652	40.64	1043	32.30
*D-1_*	80	3179	56.38	1756	41.90	12357	111.16	60979	246.94	3987	63.14	1659	40.73	973	31.19
*D-1_*	81	3154	56.16	1722	41.50	12505	111.83	61180	247.35	4179	64.65	1658	40.72	1035	32.17
*D-1_*	82	3181	56.40	1705	41.29	12659	112.51	61036	247.05	4037	63.54	1712	41.38	1047	32.36
*D-1_*	83	3168	56.28	1768	42.05	12730	112.83	60862	246.70	4070	63.80	1696	41.18	1036	32.19
*D-1_*	84	3175	56.35	1777	42.15	12874	113.46	60403	245.77	4026	63.45	1720	41.47	985	31.38
*D-1_*	85	3215	56.70	1764	42.00	13066	114.31	60573	246.12	4066	63.77	1728	41.57	982	31.34
*D-1_*	86	3360	57.97	1813	42.58	13010	114.06	60192	245.34	4071	63.80	1709	41.34	1043	32.30
*D-1_*	87	3196	56.53	1769	42.06	13222	114.99	59576	244.08	4366	66.08	1723	41.51	1043	32.30
*D-1_*	88	3278	57.25	1803	42.46	13422	115.85	59301	243.52	4038	63.55	1687	41.07	1042	32.28
*D-1_*	89	3273	57.21	1772	42.10	13521	116.28	58808	242.50	4131	64.27	1748	41.81	1032	32.12
*D-1_*	90	3276	57.24	1853	43.05	13605	116.64	58859	242.61	4148	64.40	1778	42.17	1084	32.92
*D-1_*	91	3275	57.23	1746	41.79	13931	118.03	59056	243.01	4159	64.49	1734	41.64	1001	31.64
*D-1_*	92	3328	57.69	1875	43.30	13846	117.67	58869	242.63	4071	63.80	1764	42.00	1046	32.34
*D-1_*	93	3380	58.14	1816	42.61	13800	117.47	58322	241.50	4120	64.19	1791	42.32	1071	32.73
*D-1_*	94	3341	57.80	1824	42.71	13985	118.26	58635	242.15	4184	64.68	1851	43.02	1080	32.86
*D-1_*	95	3348	57.86	1858	43.10	14074	118.63	58524	241.92	4104	64.06	1772	42.10	1118	33.44
*D-1_*	96	3365	58.01	1870	43.24	14037	118.48	58503	241.87	4018	63.39	1864	43.17	1038	32.22
*D-1_*	97	3347	57.85	1860	43.13	14007	118.35	58453	241.77	4069	63.79	1830	42.78	1070	32.71
*D-1_*	98	3344	57.83	1858	43.10	14103	118.76	58400	241.66	4056	63.69	1939	44.03	1078	32.83
*D-1_*	99	3387	58.20	1847	42.98	14284	119.52	58564	242.00	4151	64.43	1801	42.44	1092	33.05
*D-1_*	100	3288	57.34	1853	43.05	14139	118.91	58048	240.93	4253	65.22	1792	42.33	1122	33.50
*D-1_*	101	3359	57.96	1856	43.08	14264	119.43	58481	241.83	4170	64.58	1885	43.42	1125	33.54
*D-1_*	102	3338	57.78	1774	42.12	14177	119.07	58269	241.39	4134	64.30	1841	42.91	1087	32.97
*D-1_*	103	3300	57.45	1800	42.43	14008	118.36	58114	241.07	4148	64.40	1911	43.71	1103	33.21
*D-1_*	104	3263	57.12	1788	42.28	14282	119.51	57950	240.73	4085	63.91	1915	43.76	1120	33.47
*D-1_*	105	3204	56.60	1863	43.16	14187	119.11	58316	241.49	4226	65.01	1769	42.06	1083	32.91
*D-1_*	106	3395	58.27	1854	43.06	13946	118.09	58122	241.09	4124	64.22	1845	42.95	1080	32.86

EA4_15

*D-1_*	107	3351	57.89	1933	43.97	14136	118.89	57584	239.97	4198	64.79	1836	42.85	1087	32.97
*D-1_*	108	3443	58.68	1857	43.09	14255	119.39	58252	241.35	4096	64.00	1894	43.52	1109	33.30
*D-1_*	109	3394	58.26	1914	43.75	14186	119.10	57675	240.16	4136	64.31	1892	43.50	1146	33.85
*D-1_*	110	3329	57.70	1879	43.35	14343	119.76	58114	241.07	4127	64.24	1869	43.23	1113	33.36
*D-1_*	111	3406	58.36	1962	44.29	14329	119.70	57942	240.71	4017	63.38	1952	44.18	1129	33.60
*D-1_*	112	3383	58.16	1835	42.84	14407	120.03	58100	241.04	4127	64.24	1901	43.60	1042	32.28
*D-1_*	113	3340	57.79	1984	44.54	14557	120.65	57296	239.37	4120	64.19	1851	43.02	1119	33.45
*D-1_*	114	3348	57.86	1778	42.17	14151	118.96	57891	240.61	4103	64.05	1795	42.37	1090	33.02
*D-1_*	115	3417	58.46	1883	43.39	14272	119.47	57662	240.13	4095	63.99	1843	42.93	1098	33.14
*D-1_*	116	3537	59.47	1873	43.28	14298	119.57	57437	239.66	4149	64.41	1928	43.91	1090	33.02
*D-1_*	117	3457	58.80	1882	43.38	14408	120.03	57603	240.01	4234	65.07	1866	43.20	1089	33.00
*D-1_*	118	3428	58.55	1895	43.53	14468	120.28	57937	240.70	4187	64.71	1903	43.62	1048	32.37
*D-1_*	119	3459	58.81	1865	43.19	14469	120.29	57794	240.40	4165	64.54	1866	43.20	1056	32.50
*D-1_*	120	3498	59.14	1918	43.79	14476	120.32	57729	240.27	4128	64.25	1811	42.56	1056	32.50
*D-1_*	121	3314	57.57	1784	42.24	14457	120.24	57942	240.71	4168	64.56	1839	42.88	1141	33.78
*D-1_*	122	3438	58.63	1959	44.26	14526	120.52	57268	239.31	4124	64.22	1832	42.80	1121	33.48
*D-1_*	123	3418	58.46	1882	43.38	14365	119.85	57417	239.62	4174	64.61	1828	42.76	1068	32.68
*D-1_*	124	3471	58.92	1877	43.32	14590	120.79	57887	240.60	4170	64.58	1795	42.37	1070	32.71
*D-1_*	125	3432	58.58	1894	43.52	14561	120.67	58125	241.09	4059	63.71	1840	42.90	1063	32.60
*D-1_*	126	3455	58.78	1848	42.99	14334	119.72	57755	240.32	4169	64.57	1882	43.38	1153	33.96
*D-1_*	127	3465	58.86	1869	43.23	14522	120.51	57704	240.22	4067	63.77	1878	43.34	1095	33.09
*D-1_*	128	3499	59.15	1844	42.94	14501	120.42	57925	240.68	4132	64.28	1765	42.01	1127	33.57
*D-1_*	129	3467	58.88	1932	43.95	14491	120.38	57856	240.53	4133	64.29	1864	43.17	1126	33.56
*D-1_*	130	3541	59.51	1851	43.02	14461	120.25	57550	239.90	4067	63.77	1739	41.70	1053	32.45
*D-1_*	131	3500	59.16	1842	42.92	14259	119.41	58066	240.97	4093	63.98	1858	43.10	1078	32.83
*D-1_*	132	3496	59.13	1849	43.00	14283	119.51	58575	242.02	4200	64.81	1760	41.95	1047	32.36
*D-1_*	133	3480	58.99	1899	43.58	14310	119.62	58338	241.53	4150	64.42	1792	42.33	1042	32.28
*D-1_*	134	3480	58.99	1889	43.46	14428	120.12	58027	240.89	4113	64.13	1794	42.36	1147	33.87
*D-1_*	135	3515	59.29	1849	43.00	14271	119.46	58029	240.89	4134	64.30	1701	41.24	1093	33.06
*D-1_*	136	3479	58.98	1900	43.59	14282	119.51	58388	241.64	4173	64.60	1849	43.00	1039	32.23
*D-1_*	137	3569	59.74	1864	43.17	14237	119.32	58215	241.28	4130	64.27	1795	42.37	1076	32.80
*D-1_*	138	3588	59.90	1851	43.02	14239	119.33	58057	240.95	4088	63.94	1727	41.56	1068	32.68
*D-1_*	139	3561	59.67	1856	43.08	14312	119.63	58278	241.41	4253	65.22	1739	41.70	1087	32.97
*D-1_*	140	3414	58.43	1895	43.53	14024	118.42	58446	241.76	4145	64.38	1771	42.08	1063	32.60
*D-1_*	141	3526	59.38	1876	43.31	14063	118.59	57856	240.53	4250	65.19	1728	41.57	1068	32.68
*D-1_*	142	3504	59.19	1856	43.08	13914	117.96	58685	242.25	4044	63.59	1742	41.74	1069	32.70
*D-1_*	143	3435	58.61	1822	42.68	14039	118.49	57990	240.81	4137	64.32	1827	42.74	1082	32.89
*D-1_*	144	3531	59.42	1870	43.24	14242	119.34	58724	242.33	4113	64.13	1746	41.79	1041	32.26
*D-1_*	145	3404	58.34	1884	43.41	14086	118.68	58508	241.88	4131	64.27	1762	41.98	999	31.61
*D-1_*	146	3509	59.24	1820	42.66	14090	118.70	58332	241.52	4190	64.73	1759	41.94	1106	33.26
*D-1_*	147	3508	59.23	1815	42.60	14035	118.47	58318	241.49	4334	65.83	1767	42.04	1063	32.60
*D-1_*	148	3498	59.14	1917	43.78	14007	118.35	57881	240.58	4116	64.16	1773	42.11	1107	33.27
*D-1_*	149	3478	58.97	1947	44.12	14078	118.65	57741	240.29	4171	64.58	1772	42.10	1041	32.26
*D-1_*	150	3530	59.41	1861	43.14	13966	118.18	58449	241.76	4257	65.25	1744	41.76	1029	32.08
*D-1_*	151	3452	58.75	1927	43.90	14049	118.53	58231	241.31	4246	65.16	1661	40.76	1057	32.51
*D-1_*	152	3351	57.89	1844	42.94	13847	117.67	58307	241.47	4142	64.36	1734	41.64	1133	33.66
*D-1_*	153	3512	59.26	1806	42.50	13734	117.19	58141	241.12	4169	64.57	1722	41.50	1022	31.97
*D-1_*	154	3426	58.53	1876	43.31	13919	117.98	58067	240.97	4273	65.37	1753	41.87	1037	32.20
*D-1_*	155	3398	58.29	1817	42.63	14117	118.81	58039	240.91	4125	64.23	1734	41.64	1002	31.65
*D-1_*	156	3503	59.19	1851	43.02	13841	117.65	57535	239.86	4222	64.98	1763	41.99	1009	31.76
*D-1_*	157	3505	59.20	1884	43.41	14087	118.69	57511	239.81	4258	65.25	1667	40.83	1063	32.60
*D-1_*	158	3518	59.31	1851	43.02	14037	118.48	57888	240.60	4290	65.50	1647	40.58	1045	32.33
*D-1_*	159	3506	59.21	1833	42.81	14363	119.85	57762	240.34	4273	65.37	1722	41.50	1036	32.19
*D-1_*	160	3539	59.49	1825	42.72	14246	119.36	57299	239.37	4185	64.69	1776	42.14	1028	32.06
*D-1_*	161	3563	59.69	1826	42.73	14461	120.25	56944	238.63	4286	65.47	1720	41.47	996	31.56
*D-1_*	162	3651	60.42	1860	43.13	14365	119.85	56294	237.26	4351	65.96	1747	41.80	1031	32.11
*D-1_*	163	3630	60.25	1842	42.92	14917	122.14	56882	238.50	4398	66.32	1736	41.67	1090	33.02
*D-1_*	164	3722	61.01	1890	43.47	14916	122.13	56518	237.74	4381	66.19	1823	42.70	1093	33.06
*D-1_*	165	3699	60.82	1847	42.98	15060	122.72	56339	237.36	4500	67.08	1732	41.62	1026	32.03
*D-1_*	166	3754	61.27	1766	42.02	15125	122.98	55801	236.22	4467	66.84	1797	42.39	1068	32.68
*D-1_*	167	3791	61.57	1856	43.08	15216	123.35	55856	236.34	4300	65.57	1783	42.23	1012	31.81
*D-1_*	168	3784	61.51	1926	43.89	15435	124.24	55650	235.90	4310	65.65	1871	43.26	1061	32.57
*D-1_*	169	3734	61.11	1849	43.00	15031	122.60	55748	236.11	4514	67.19	1791	42.32	981	31.32
*D-1_*	170	3752	61.25	1769	42.06	14970	122.35	56458	237.61	4364	66.06	1782	42.21	1035	32.17
*D-1_*	171	3677	60.64	1737	41.68	14495	120.40	56778	238.28	4477	66.91	1722	41.50	997	31.58
*D-1_*	172	3645	60.37	1778	42.17	14109	118.78	57716	240.24	4267	65.32	1723	41.51	964	31.05
*D-1_*	173	3481	59.00	1745	41.77	13508	116.22	57932	240.69	4254	65.22	1800	42.43	992	31.50
*D-1_*	174	3579	59.82	1703	41.27	13017	114.09	59055	243.01	4270	65.35	1674	40.91	971	31.16
*D-1_*	175	3448	58.72	1815	42.60	12784	113.07	58890	242.67	4253	65.22	1710	41.35	1063	32.60
*D-1_*	176	3351	57.89	1690	41.11	12172	110.33	59226	243.36	4073	63.82	1795	42.37	1070	32.71
*D-1_*	177	3345	57.84	1789	42.30	11765	108.47	59969	244.89	4194	64.76	1700	41.23	1108	33.29
*D-1_*	178	3303	57.47	1851	43.02	11974	109.43	59105	243.12	4113	64.13	1797	42.39	1169	34.19
*D-1_*	179	3522	59.35	1766	42.02	13431	115.89	56927	238.59	4350	65.95	2028	45.03	1253	35.40
*D-1_*	180	3611	60.09	1780	42.19	13726	117.16	56791	238.31	4348	65.94	1951	44.17	1092	33.05
*D-1_*	181	3659	60.49	1783	42.23	13925	118.00	56582	237.87	4364	66.06	1855	43.07	1045	32.33
*D-1_*	182	3602	60.02	1729	41.58	13715	117.11	58023	240.88	4409	66.40	1808	42.52	1012	31.81
*D-1_*	183	3477	58.97	1674	40.91	13890	117.86	57420	239.62	4277	65.40	1653	40.66	1077	32.82
*D-1_*	184	3408	58.38	1741	41.73	14085	118.68	57516	239.82	4324	65.76	1695	41.17	1050	32.40
*D-1_*	185	3587	59.89	1707	41.32	14243	119.34	57577	239.95	4304	65.60	1704	41.28	1052	32.43
*D-1_*	186	3599	59.99	1847	42.98	14266	119.44	57162	239.09	4223	64.98	1766	42.02	1076	32.80
*D-1_*	187	3585	59.87	1899	43.58	14355	119.81	56787	238.30	4287	65.48	1804	42.47	1079	32.85
*D-1_*	188	3598	59.98	1799	42.41	14493	120.39	56809	238.35	4262	65.28	1713	41.39	1083	32.91
*D-1_*	189	3436	58.62	1834	42.83	14760	121.49	55592	235.78	4224	64.99	1919	43.81	1107	33.27
*D-1_*	190	3566	59.72	1837	42.86	14794	121.63	55877	236.38	4347	65.93	1836	42.85	1184	34.41
*D-1_*	191	3481	59.00	1865	43.19	14558	120.66	55684	235.97	4270	65.35	1947	44.12	1133	33.66
*D-1_*	192	3570	59.75	1801	42.44	14977	122.38	55511	235.61	4114	64.14	1940	44.05	1147	33.87
*D-1_*	193	3522	59.35	1821	42.67	14957	122.30	56105	236.86	4118	64.17	1879	43.35	1129	33.60
*D-1_*	194	3415	58.44	1867	43.21	14507	120.45	55778	236.17	4204	64.84	1944	44.09	1190	34.50
*D-1_*	195	3425	58.52	1892	43.50	14550	120.62	55961	236.56	4178	64.64	1810	42.54	1256	35.44
*D-1_*	196	3458	58.80	1858	43.10	14674	121.14	55796	236.21	4121	64.20	1957	44.24	1247	35.31
*D-1_*	197	3348	57.86	1799	42.41	14632	120.96	56234	237.14	4026	63.45	1893	43.51	1175	34.28
*D-1_*	198	3317	57.59	1861	43.14	14517	120.49	56270	237.21	4081	63.88	1888	43.45	1153	33.96
*D-1_*	199	3342	57.81	1810	42.54	14338	119.74	55994	236.63	4052	63.66	1872	43.27	1145	33.84

EA4_16

*D-1_*	200	3341	57.80	1841	42.91	14434	120.14	56300	237.28	4138	64.33	1915	43.76	1140	33.76
*D-1_*	201	3291	57.37	1787	42.27	13976	118.22	57528	239.85	4066	63.77	1718	41.45	1064	32.62
*D-1_*	202	3240	56.92	1727	41.56	14120	118.83	57698	240.20	4016	63.37	1708	41.33	1134	33.67
*D-1_*	203	3175	56.35	1762	41.98	13911	117.94	57254	239.28	4023	63.43	1758	41.93	1075	32.79
*D-1_*	204	3296	57.41	1781	42.20	13992	118.29	57277	239.33	4050	63.64	1823	42.70	1152	33.94
*D-1_*	205	3391	58.23	1773	42.11	14337	119.74	57067	238.89	3998	63.23	1778	42.17	1101	33.18
*D-1_*	206	3283	57.30	1724	41.52	14065	118.60	56818	238.37	3953	62.87	1804	42.47	1109	33.30
*D-1_*	207	3329	57.70	1841	42.91	14561	120.67	56482	237.66	3881	62.30	1784	42.24	1157	34.01
*D-1_*	208	3303	57.47	1805	42.49	14296	119.57	57292	239.36	4074	63.83	1780	42.19	1062	32.59
*D-1_*	209	3314	57.57	1802	42.45	14425	120.10	56700	238.12	4029	63.47	1825	42.72	1049	32.39
*D-1_*	210	3292	57.38	1789	42.30	14369	119.87	56901	238.54	4123	64.21	1806	42.50	1144	33.82
*D-1_*	211	3269	57.18	1850	43.01	14374	119.89	56431	237.55	3971	63.02	1935	43.99	1052	32.43
*D-1_*	212	3249	57.00	1756	41.90	14381	119.92	57116	238.99	3985	63.13	1776	42.14	1083	32.91
*D-1_*	213	3238	56.90	1731	41.61	14246	119.36	57074	238.90	3966	62.98	1867	43.21	1061	32.57
*D-1_*	214	3246	56.97	1733	41.63	14283	119.51	57067	238.89	3897	62.43	1775	42.13	1085	32.94
*D-1_*	215	3222	56.76	1738	41.69	14162	119.00	57213	239.19	3955	62.89	1722	41.50	1184	34.41
*D-1_*	216	3179	56.38	1770	42.07	14040	118.49	57125	239.01	3967	62.98	1837	42.86	1068	32.68
*D-1_*	217	3236	56.89	1777	42.15	13951	118.11	56863	238.46	3856	62.10	1731	41.61	1086	32.95
*D-1_*	218	3277	57.25	1772	42.10	14016	118.39	57565	239.93	4006	63.29	1765	42.01	1122	33.50
*D-1_*	219	3294	57.39	1724	41.52	13960	118.15	57364	239.51	3927	62.67	1778	42.17	1096	33.11
*D-1_*	220	3103	55.70	1707	41.32	13731	117.18	57741	240.29	4015	63.36	1751	41.84	1074	32.77
*D-1_*	221	3122	55.87	1724	41.52	13570	116.49	58374	241.61	3939	62.76	1702	41.26	1043	32.30
*D-1_*	222	3077	55.47	1689	41.10	13440	115.93	58326	241.51	3898	62.43	1715	41.41	1052	32.43
*D-1_*	223	3072	55.43	1673	40.90	13316	115.39	58494	241.86	3921	62.62	1698	41.21	1095	33.09
*D-1_*	224	3128	55.93	1797	42.39	13011	114.07	58206	241.26	4052	63.66	1715	41.41	1108	33.29
*D-1_*	225	3065	55.36	1642	40.52	13459	116.01	58419	241.70	3913	62.55	1708	41.33	1149	33.90
*D-1_*	226	3209	56.65	1769	42.06	13336	115.48	58097	241.03	4059	63.71	1710	41.35	1135	33.69
*D-1_*	227	3066	55.37	1644	40.55	13530	116.32	57852	240.52	3983	63.11	1812	42.57	1155	33.99
*D-1_*	228	3025	55.00	1724	41.52	13732	117.18	57896	240.62	3937	62.75	1867	43.21	1132	33.65
*D-1_*	229	3149	56.12	1719	41.46	13891	117.86	57406	239.60	3901	62.46	1814	42.59	1166	34.15
*D-1_*	230	3227	56.81	1710	41.35	13924	118.00	57011	238.77	3925	62.65	1863	43.16	1126	33.56
*D-1_*	231	3219	56.74	1626	40.32	14167	119.03	56365	237.41	3813	61.75	1840	42.90	1134	33.67
*D-1_*	232	3148	56.11	1735	41.65	13911	117.94	57150	239.06	3887	62.35	1919	43.81	1221	34.94
*D-1_*	233	3219	56.74	1732	41.62	13969	118.19	57167	239.10	3943	62.79	1842	42.92	1193	34.54
*D-1_*	234	3073	55.43	1624	40.30	13915	117.96	57158	239.08	3910	62.53	1884	43.41	1197	34.60
*D-1_*	235	3204	56.60	1639	40.48	13504	116.21	58227	241.30	3909	62.52	1757	41.92	1159	34.04
*D-1_*	236	2974	54.53	1674	40.91	13125	114.56	58187	241.22	3890	62.37	1655	40.68	1164	34.12
*D-1_*	237	2959	54.40	1578	39.72	13214	114.95	58734	242.35	4042	63.58	1732	41.62	1152	33.94
*D-1_*	238	2927	54.10	1530	39.12	13088	114.40	58092	241.02	3901	62.46	1682	41.01	1167	34.16
*D-1_*	239	2978	54.57	1621	40.26	12911	113.63	58614	242.10	3948	62.83	1620	40.25	1159	34.04
*D-1_*	240	2974	54.53	1536	39.19	12760	112.96	58639	242.15	3903	62.47	1681	41.00	1161	34.07
*D-1_*	241	3023	54.98	1567	39.59	12981	113.93	58793	242.47	3889	62.36	1659	40.73	1133	33.66
*D-1_*	242	3009	54.85	1508	38.83	12906	113.60	58640	242.16	3881	62.30	1671	40.88	1140	33.76
*D-1_*	243	2931	54.14	1556	39.45	12835	113.29	59073	243.05	3829	61.88	1661	40.76	1145	33.84
*D-1_*	244	2977	54.56	1505	38.79	12744	112.89	58677	242.23	3945	62.81	1632	40.40	1147	33.87
*D-1_*	245	2954	54.35	1474	38.39	12891	113.54	58557	241.99	3837	61.94	1658	40.72	1189	34.48
*D-1_*	246	3005	54.82	1461	38.22	13008	114.05	58821	242.53	3844	62.00	1705	41.29	1154	33.97
*D-1_*	247	3000	54.77	1527	39.08	13229	115.02	58290	241.43	3849	62.04	1658	40.72	1165	34.13
*D-1_*	248	3036	55.10	1497	38.69	13057	114.27	58764	242.41	3850	62.05	1702	41.26	1160	34.06
*D-1_*	249	3082	55.52	1476	38.42	13301	115.33	57950	240.73	3796	61.61	1715	41.41	1166	34.15
*D-1_*	250	3031	55.05	1484	38.52	13161	114.72	58216	241.28	3835	61.93	1705	41.29	1191	34.51
*D-1_*	251	3084	55.53	1547	39.33	13135	114.61	58293	241.44	4029	63.47	1705	41.29	1173	34.25
*D-1_*	252	2961	54.42	1568	39.60	13220	114.98	58040	240.91	3790	61.56	1731	41.61	1174	34.26
*D-1_*	253	3014	54.90	1610	40.12	13058	114.27	58166	241.18	3842	61.98	1679	40.98	1205	34.71
*D-1_*	254	2957	54.38	1564	39.55	13234	115.04	58149	241.14	3937	62.75	1698	41.21	1226	35.01
*D-1_*	255	3079	55.49	1542	39.27	13284	115.26	57913	240.65	3953	62.87	1732	41.62	1177	34.31
*D-1_*	256	3075	55.45	1527	39.08	13093	114.42	57686	240.18	3761	61.33	1731	41.61	1142	33.79
*D-1_*	257	3104	55.71	1565	39.56	13152	114.68	58116	241.07	3792	61.58	1757	41.92	1202	34.67
*D-1_*	258	3059	55.31	1562	39.52	13261	115.16	57917	240.66	3832	61.90	1724	41.52	1129	33.60
*D-1_*	259	3092	55.61	1608	40.10	13337	115.49	57800	240.42	3860	62.13	1804	42.47	1149	33.90
*D-1_*	260	3081	55.51	1601	40.01	13186	114.83	58338	241.53	3847	62.02	1733	41.63	1154	33.97
*D-1_*	261	3071	55.42	1529	39.10	13189	114.84	58071	240.98	3894	62.40	1729	41.58	1127	33.57
*D-1_*	262	2973	54.53	1603	40.04	12942	113.76	58461	241.79	3883	62.31	1705	41.29	1133	33.66
*D-1_*	263	3004	54.81	1604	40.05	12967	113.87	58464	241.79	3785	61.52	1738	41.69	1117	33.42
*D-1_*	264	3058	55.30	1552	39.40	12977	113.92	58518	241.90	3900	62.45	1748	41.81	1143	33.81
*D-1_*	265	2953	54.34	1583	39.79	13000	114.02	58576	242.02	3917	62.59	1774	42.12	1146	33.85
*D-1_*	266	2937	54.19	1536	39.19	12747	112.90	58543	241.96	3992	63.18	1721	41.48	1101	33.18
*D-1_*	267	3062	55.34	1627	40.34	13141	114.63	58354	241.57	3845	62.01	1775	42.13	1119	33.45
*D-1_*	268	3032	55.06	1627	40.34	12776	113.03	58798	242.48	3907	62.51	1742	41.74	1148	33.88
*D-1_*	269	3094	55.62	1682	41.01	13062	114.29	58295	241.44	3836	61.94	1788	42.28	1141	33.78
*D-1_*	270	3026	55.01	1667	40.83	12929	113.71	58434	241.73	3971	63.02	1802	42.45	1159	34.04
*D-1_*	271	3131	55.96	1610	40.12	13181	114.81	57938	240.70	3901	62.46	1800	42.43	1120	33.47
*D-1_*	272	2964	54.44	1619	40.24	13366	115.61	58457	241.78	3922	62.63	1831	42.79	1100	33.17
*D-1_*	273	3063	55.34	1660	40.74	13279	115.23	57788	240.39	3877	62.27	1799	42.41	1054	32.47
*D-1_*	274	3092	55.61	1614	40.17	13355	115.56	57384	239.55	3907	62.51	1839	42.88	1129	33.60
*D-1_*	275	3026	55.01	1671	40.88	13691	117.01	57566	239.93	3914	62.56	1870	43.24	1092	33.05
*D-1_*	276	3089	55.58	1698	41.21	13576	116.52	56965	238.67	3940	62.77	1888	43.45	1149	33.90
*D-1_*	277	3092	55.61	1733	41.63	13554	116.42	57881	240.58	3865	62.17	1931	43.94	1147	33.87
*D-1_*	278	3024	54.99	1724	41.52	13682	116.97	57539	239.87	3824	61.84	1886	43.43	1113	33.36
*D-1_*	279	3072	55.43	1729	41.58	13549	116.40	57001	238.75	3896	62.42	1845	42.95	1129	33.60
*D-1_*	280	3012	54.88	1736	41.67	13585	116.55	57515	239.82	3902	62.47	1815	42.60	1128	33.59
*D-1_*	281	3126	55.91	1633	40.41	13472	116.07	57653	240.11	3921	62.62	1935	43.99	1161	34.07
*D-1_*	282	3158	56.20	1775	42.13	13734	117.19	56860	238.45	3874	62.24	1820	42.66	1149	33.90
*D-1_*	283	3083	55.52	1704	41.28	13721	117.14	56575	237.85	3922	62.63	1936	44.00	1124	33.53
*D-1_*	284	3208	56.64	1773	42.11	13710	117.09	56720	238.16	3929	62.68	1995	44.67	1112	33.35
*D-1_*	285	3264	57.13	1723	41.51	13966	118.18	56545	237.79	3852	62.06	1931	43.94	1144	33.82
*D-1_*	286	3086	55.55	1708	41.33	14010	118.36	56721	238.16	3892	62.39	1941	44.06	1187	34.45
*D-1_*	287	3147	56.10	1768	42.05	13719	117.13	57073	238.90	3963	62.95	1930	43.93	1146	33.85
*E-1_*	1	5450	73.82	1705	41.29	10036	100.18	57093	238.94	5435	73.72	1907	43.67	1126	33.56
*E-1_*	2	5477	74.01	1644	40.55	10711	103.49	56275	237.22	5695	75.47	1816	42.61	1013	31.83
*E-1_*	3	5208	72.17	1490	38.60	12337	111.07	53904	232.17	5645	75.13	1688	41.09	1028	32.06
*E-1_*	4	4991	70.65	1595	39.94	13559	116.44	51905	227.83	5852	76.50	1613	40.16	1042	32.28
*E-1_*	5	5156	71.81	1577	39.71	13798	117.46	54340	233.11	5929	77.00	1539	39.23	974	31.21

EA4_17

*E-1_*	6	4933	70.24	1664	40.79	13454	115.99	54971	234.46	5943	77.09	1519	38.97	969	31.13
*E-1_*	7	4957	70.41	1684	41.04	13867	117.76	55251	235.06	5885	76.71	1483	38.51	950	30.82
*E-1_*	8	4835	69.53	1634	40.42	13963	118.17	55163	234.87	5859	76.54	1467	38.30	964	31.05
*E-1_*	9	4693	68.51	1646	40.57	14180	119.08	55476	235.53	5732	75.71	1518	38.96	942	30.69
*E-1_*	10	4582	67.69	1657	40.71	14352	119.80	55302	235.16	5743	75.78	1491	38.61	984	31.37
*E-1_*	11	4712	68.64	1710	41.35	14466	120.27	55374	235.32	5673	75.32	1449	38.07	984	31.37
*E-1_*	12	4095	63.99	1584	39.80	13917	117.97	52471	229.07	5289	72.73	1477	38.43	950	30.82
*E-1_*	13	4606	67.87	1696	41.18	14388	119.95	55087	234.71	5556	74.54	1517	38.95	891	29.85
*E-1_*	14	4515	67.19	1670	40.87	14489	120.37	55680	235.97	5616	74.94	1424	37.74	972	31.18
*E-1_*	15	4325	65.76	1718	41.45	14430	120.12	55378	235.33	5641	75.11	1434	37.87	958	30.95
*E-1_*	16	4293	65.52	1713	41.39	14313	119.64	56087	236.83	5437	73.74	1455	38.14	990	31.46
*E-1_*	17	4195	64.77	1671	40.88	14300	119.58	56301	237.28	5345	73.11	1465	38.28	1006	31.72
*E-1_*	18	4075	63.84	1683	41.02	14269	119.45	56023	236.69	5264	72.55	1489	38.59	1066	32.65
*E-1_*	19	4098	64.02	1700	41.23	14254	119.39	56370	237.42	5269	72.59	1477	38.43	991	31.48
*E-1_*	20	4012	63.34	1749	41.82	14517	120.49	56004	236.65	5392	73.43	1551	39.38	993	31.51
*E-1_*	21	3965	62.97	1777	42.15	14408	120.03	56139	236.94	5221	72.26	1456	38.16	1035	32.17
*E-1_*	22	3873	62.23	1740	41.71	14199	119.16	56176	237.01	5249	72.45	1516	38.94	1026	32.03
*E-1_*	23	3929	62.68	1739	41.70	14034	118.47	56899	238.54	5188	72.03	1516	38.94	1022	31.97
*E-1_*	24	3705	60.87	1698	41.21	13413	115.81	57452	239.69	4937	70.26	1500	38.73	1062	32.59
*E-1_*	25	3762	61.34	1679	40.98	13290	115.28	58193	241.23	4997	70.69	1498	38.70	1028	32.06
*E-1_*	26	3623	60.19	1634	40.42	13160	114.72	58329	241.51	4854	69.67	1473	38.38	1013	31.83
*E-1_*	27	3717	60.97	1672	40.89	13162	114.73	58010	240.85	4879	69.85	1536	39.19	1011	31.80
*E-1_*	28	3699	60.82	1727	41.56	13632	116.76	57523	239.84	5003	70.73	1521	39.00	1033	32.14
*E-1_*	29	3754	61.27	1679	40.98	13661	116.88	57465	239.72	4936	70.26	1549	39.36	1038	32.22
*E-1_*	30	3763	61.34	1658	40.72	13777	117.38	57379	239.54	5000	70.71	1499	38.72	1060	32.56
*E-1_*	31	3707	60.89	1704	41.28	13864	117.75	57376	239.53	4874	69.81	1565	39.56	1033	32.14
*E-1_*	32	3753	61.26	1742	41.74	13798	117.46	57663	240.13	4778	69.12	1558	39.47	1050	32.40
*E-1_*	33	3733	61.10	1780	42.19	13840	117.64	56858	238.45	4733	68.80	1553	39.41	1047	32.36
*E-1_*	34	3574	59.78	1764	42.00	14137	118.90	57115	238.99	4673	68.36	1613	40.16	1090	33.02
*E-1_*	35	3689	60.74	1694	41.16	14710	121.28	56832	238.39	4688	68.47	1599	39.99	1053	32.45
*E-1_*	36	3780	61.48	1781	42.20	14615	120.89	56588	237.88	4733	68.80	1602	40.02	1079	32.85
*E-1_*	37	3728	61.06	1825	42.72	14666	121.10	56065	236.78	4576	67.65	1598	39.97	1105	33.24
*E-1_*	38	3807	61.70	1809	42.53	14830	121.78	56076	236.80	4579	67.67	1583	39.79	1035	32.17
*E-1_*	39	3639	60.32	1764	42.00	14143	118.92	55540	235.67	4585	67.71	1520	38.99	1036	32.19
*E-1_*	40	3506	59.21	1770	42.07	14284	119.52	55790	236.20	4651	68.20	1521	39.00	1100	33.17
*E-1_*	41	3775	61.44	1764	42.00	14393	119.97	56681	238.08	4611	67.90	1524	39.04	1058	32.53
*E-1_*	42	3546	59.55	1702	41.26	14263	119.43	57004	238.76	4667	68.32	1496	38.68	1045	32.33
*E-1_*	43	3641	60.34	1803	42.46	14340	119.75	57604	240.01	4613	67.92	1499	38.72	1086	32.95
*E-1_*	44	3505	59.20	1795	42.37	14349	119.79	57155	239.07	4632	68.06	1516	38.94	1069	32.70
*E-1_*	45	3563	59.69	1821	42.67	14466	120.27	56728	238.18	4474	66.89	1477	38.43	1133	33.66
*E-1_*	46	3516	59.30	1872	43.27	14788	121.61	56408	237.50	4520	67.23	1497	38.69	1101	33.18
*E-1_*	47	3458	58.80	1796	42.38	14367	119.86	57073	238.90	4615	67.93	1510	38.86	1095	33.09
*E-1_*	48	3384	58.17	1713	41.39	14207	119.19	57655	240.11	4457	66.76	1439	37.93	1052	32.43
*E-1_*	49	3268	57.17	1728	41.57	13699	117.04	58260	241.37	4488	66.99	1439	37.93	1078	32.83
*E-1_*	50	3405	58.35	1727	41.56	13789	117.43	58365	241.59	4407	66.39	1385	37.22	1051	32.42
*E-1_*	51	3268	57.17	1714	41.40	13636	116.77	57802	240.42	4475	66.90	1473	38.38	1041	32.26
*E-1_*	52	3237	56.89	1741	41.73	13854	117.70	58314	241.48	4411	66.42	1432	37.84	1020	31.94
*E-1_*	53	3240	56.92	1791	42.32	14160	119.00	57440	239.67	4379	66.17	1388	37.26	1087	32.97
*E-1_*	54	3277	57.25	1734	41.64	14128	118.86	57765	240.34	4416	66.45	1448	38.05	1046	32.34
*E-1_*	55	3431	58.57	1782	42.21	14187	119.11	57563	239.92	4303	65.60	1477	38.43	1069	32.70
*E-1_*	56	3373	58.08	1766	42.02	14139	118.91	57472	239.73	4345	65.92	1459	38.20	1069	32.70
*E-1_*	57	3340	57.79	1787	42.27	14255	119.39	57431	239.65	4358	66.02	1377	37.11	1078	32.83
*E-1_*	58	3411	58.40	1817	42.63	14362	119.84	56958	238.66	4243	65.14	1535	39.18	1088	32.98
*E-1_*	59	3379	58.13	1879	43.35	14820	121.74	56236	237.14	4343	65.90	1504	38.78	1104	33.23
*E-1_*	60	3370	58.05	1882	43.38	14825	121.76	56534	237.77	4379	66.17	1511	38.87	1075	32.79
*E-1_*	61	3309	57.52	1866	43.20	14895	122.05	56794	238.31	4260	65.27	1540	39.24	1184	34.41
*E-1_*	62	3391	58.23	1885	43.42	14997	122.46	56567	237.84	4184	64.68	1556	39.45	1153	33.96
*E-1_*	63	3334	57.74	1808	42.52	14628	120.95	56789	238.30	4280	65.42	1564	39.55	1109	33.30
*E-1_*	64	3340	57.79	1832	42.80	14447	120.20	57329	239.43	4322	65.74	1517	38.95	1144	33.82
*E-1_*	65	3334	57.74	1812	42.57	14143	118.92	57642	240.09	4192	64.75	1503	38.77	1126	33.56
*E-1_*	66	3390	58.22	1861	43.14	14017	118.39	58354	241.57	4369	66.10	1489	38.59	1017	31.89
*E-1_*	67	3286	57.32	1808	42.52	13771	117.35	57929	240.68	4190	64.73	1493	38.64	1012	31.81
*E-1_*	68	3234	56.87	1788	42.28	13998	118.31	57935	240.70	4319	65.72	1555	39.43	1093	33.06
*E-1_*	69	3310	57.53	1689	41.10	14054	118.55	57774	240.36	4134	64.30	1478	38.44	1057	32.51
*E-1_*	70	3327	57.68	1741	41.73	14088	118.69	57946	240.72	4165	64.54	1493	38.64	1062	32.59
*E-1_*	71	3254	57.04	1780	42.19	14050	118.53	57426	239.64	4232	65.05	1559	39.48	1102	33.20
*E-1_*	72	3366	58.02	1820	42.66	14302	119.59	57651	240.11	4197	64.78	1506	38.81	1059	32.54
*E-1_*	73	3400	58.31	1870	43.24	14818	121.73	56716	238.15	4190	64.73	1568	39.60	1144	33.82
*E-1_*	74	3418	58.46	1917	43.78	14841	121.82	56962	238.67	4220	64.96	1529	39.10	1107	33.27
*E-1_*	75	3379	58.13	1908	43.68	14746	121.43	56368	237.42	4284	65.45	1553	39.41	1125	33.54
*E-1_*	76	3363	57.99	1908	43.68	14983	122.41	55676	235.96	4180	64.65	1603	40.04	1089	33.00
*E-1_*	77	3436	58.62	1801	42.44	14964	122.33	56485	237.67	4184	64.68	1583	39.79	1117	33.42
*E-1_*	78	3446	58.70	1802	42.45	15093	122.85	55963	236.57	4178	64.64	1654	40.67	1124	33.53
*E-1_*	79	3360	57.97	1844	42.94	14952	122.28	56432	237.55	4154	64.45	1585	39.81	1194	34.55
*E-1_*	80	3335	57.75	1840	42.90	14811	121.70	56498	237.69	4095	63.99	1530	39.12	1123	33.51
*E-1_*	81	3310	57.53	1793	42.34	15041	122.64	56790	238.31	4214	64.92	1575	39.69	1115	33.39
*E-1_*	82	3302	57.46	1948	44.14	14850	121.86	56303	237.28	4086	63.92	1623	40.29	1116	33.41
*E-1_*	83	3343	57.82	1848	42.99	14693	121.21	56656	238.03	4249	65.18	1480	38.47	1105	33.24
*E-1_*	84	3265	57.14	1871	43.26	14613	120.88	56633	237.98	4250	65.19	1557	39.46	1126	33.56
*E-1_*	85	3385	58.18	1878	43.34	14947	122.26	56322	237.32	4218	64.95	1605	40.06	1105	33.24
*E-1_*	86	3397	58.28	1870	43.24	14793	121.63	56402	237.49	4190	64.73	1542	39.27	1134	33.67
*E-1_*	87	3373	58.08	1896	43.54	14981	122.40	56315	237.31	4165	64.54	1600	40.00	1099	33.15
*E-1_*	88	3427	58.54	1871	43.26	14753	121.46	56863	238.46	4111	64.12	1521	39.00	1099	33.15
*E-1_*	89	3327	57.68	1812	42.57	14517	120.49	57274	239.32	4184	64.68	1455	38.14	1087	32.97
*E-1_*	90	3407	58.37	1844	42.94	14264	119.43	56930	238.60	4098	64.02	1527	39.08	1113	33.36
*E-1_*	91	3335	57.75	1848	42.99	14404	120.02	57592	239.98	4090	63.95	1545	39.31	1052	32.43
*E-1_*	92	3292	57.38	1842	42.92	14305	119.60	57241	239.25	4214	64.92	1440	37.95	1099	33.15
*E-1_*	93	3319	57.61	1865	43.19	14567	120.69	56749	238.22	4202	64.82	1446	38.03	1092	33.05
*E-1_*	94	3350	57.88	1813	42.58	14728	121.36	56659	238.03	4175	64.61	1615	40.19	1095	33.09
*E-1_*	95	3307	57.51	1757	41.92	14697	121.23	57138	239.04	4202	64.82	1570	39.62	1122	33.50
*E-1_*	96	3377	58.11	1823	42.70	14625	120.93	56536	237.77	4095	63.99	1572	39.65	1153	33.96
*E-1_*	97	3341	57.80	1818	42.64	14380	119.92	57333	239.44	4180	64.65	1534	39.17	1147	33.87
*E-1_*	98	3283	57.30	1840	42.90	14102	118.75	57742	240.30	4066	63.77	1505	38.79	1070	32.71

EA4_18

*E-1_*	99	3202	56.59	1819	42.65	14211	119.21	57451	239.69	4122	64.20	1561	39.51	1069	32.70
*E-1_*	100	3278	57.25	1764	42.00	14123	118.84	58311	241.48	4146	64.39	1506	38.81	1038	32.22
*E-1_*	101	3211	56.67	1805	42.49	14094	118.72	58070	240.98	4030	63.48	1528	39.09	1144	33.82
*E-1_*	102	3328	57.69	1860	43.13	14166	119.02	57808	240.43	4066	63.77	1446	38.03	1069	32.70
*E-1_*	103	3190	56.48	1780	42.19	14043	118.50	57615	240.03	4169	64.57	1556	39.45	1118	33.44
*E-1_*	104	3208	56.64	1897	43.55	14580	120.75	57287	239.35	4190	64.73	1463	38.25	1132	33.65
*E-1_*	105	3252	57.03	1845	42.95	14748	121.44	56954	238.65	4156	64.47	1596	39.95	1106	33.26
*E-1_*	106	3413	58.42	1865	43.19	14834	121.79	56645	238.00	4203	64.83	1585	39.81	1194	34.55
*E-1_*	107	3313	57.56	1923	43.85	15021	122.56	56068	236.79	4220	64.96	1551	39.38	1166	34.15
*E-1_*	108	3349	57.87	1910	43.70	14897	122.05	56325	237.33	4172	64.59	1604	40.05	1135	33.69
*E-1_*	109	3390	58.22	1778	42.17	15003	122.49	56251	237.17	4206	64.85	1587	39.84	1190	34.50
*E-1_*	110	3346	57.84	1827	42.74	15263	123.54	55966	236.57	4029	63.47	1577	39.71	1157	34.01
*E-1_*	111	3260	57.10	1833	42.81	15147	123.07	55959	236.56	4072	63.81	1644	40.55	1114	33.38
*E-1_*	112	3315	57.58	1845	42.95	15002	122.48	55970	236.58	4119	64.18	1598	39.97	1104	33.23
*E-1_*	113	3333	57.73	1859	43.12	14964	122.33	56723	238.17	4157	64.47	1561	39.51	1080	32.86
*E-1_*	114	3308	57.52	1869	43.23	14857	121.89	56360	237.40	4202	64.82	1589	39.86	1148	33.88
*E-1_*	115	3372	58.07	1910	43.70	14668	121.11	56964	238.67	4133	64.29	1550	39.37	1149	33.90
*E-1_*	116	3415	58.44	1875	43.30	14975	122.37	56613	237.93	4093	63.98	1595	39.94	1163	34.10
*E-1_*	117	3318	57.60	1853	43.05	14886	122.01	56167	237.00	4132	64.28	1573	39.66	1154	33.97
*E-1_*	118	3356	57.93	1916	43.77	14903	122.08	56586	237.88	4200	64.81	1608	40.10	1064	32.62
*E-1_*	119	3319	57.61	1834	42.83	14799	121.65	56288	237.25	4036	63.53	1574	39.67	1142	33.79
*E-1_*	120	3350	57.88	1877	43.32	14758	121.48	56877	238.49	4132	64.28	1605	40.06	1214	34.84
*E-1_*	121	3383	58.16	1861	43.14	14776	121.56	56297	237.27	4150	64.42	1615	40.19	1114	33.38
*E-1_*	122	3276	57.24	1839	42.88	14885	122.00	56799	238.33	4142	64.36	1561	39.51	1106	33.26
*E-1_*	123	3366	58.02	1820	42.66	14753	121.46	56956	238.65	4185	64.69	1559	39.48	1137	33.72
*E-1_*	124	3411	58.40	1890	43.47	15056	122.70	56795	238.32	4047	63.62	1631	40.39	1075	32.79
*E-1_*	125	3397	58.28	1857	43.09	14774	121.55	56277	237.23	4199	64.80	1656	40.69	1118	33.44
*E-1_*	126	3346	57.84	1936	44.00	14987	122.42	56422	237.53	4157	64.47	1544	39.29	1146	33.85
*E-1_*	127	3327	57.68	1874	43.29	14739	121.40	56339	237.36	4258	65.25	1596	39.95	1160	34.06
*E-1_*	128	3313	57.56	1839	42.88	15050	122.68	56517	237.73	4193	64.75	1544	39.29	1139	33.75
*E-1_*	129	3457	58.80	1875	43.30	14741	121.41	56326	237.33	4296	65.54	1561	39.51	1149	33.90
*E-1_*	130	3298	57.43	1853	43.05	14915	122.13	56603	237.91	4233	65.06	1605	40.06	1081	32.88
*E-1_*	131	3426	58.53	1867	43.21	14923	122.16	56678	238.07	4126	64.23	1552	39.40	1126	33.56
*E-1_*	132	3319	57.61	1802	42.45	15001	122.48	56908	238.55	4099	64.02	1523	39.03	1151	33.93
*E-1_*	133	3412	58.41	1889	43.46	14608	120.86	56542	237.79	4361	66.04	1579	39.74	1119	33.45
*E-1_*	134	3382	58.15	1885	43.42	14724	121.34	56818	238.37	4322	65.74	1511	38.87	1069	32.70
*E-1_*	135	3337	57.77	1818	42.64	14480	120.33	56918	238.57	4279	65.41	1475	38.41	1090	33.02
*E-1_*	136	3296	57.41	1788	42.28	14658	121.07	56859	238.45	4392	66.27	1525	39.05	1093	33.06
*E-1_*	137	3420	58.48	1932	43.95	14552	120.63	56674	238.06	4446	66.68	1495	38.67	1103	33.21
*E-1_*	138	3454	58.77	1787	42.27	14748	121.44	56566	237.84	4334	65.83	1561	39.51	1074	32.77
*E-1_*	139	3443	58.68	1847	42.98	14657	121.07	56669	238.05	4340	65.88	1546	39.32	1055	32.48
*E-1_*	140	3374	58.09	1840	42.90	14770	121.53	56409	237.51	4430	66.56	1528	39.09	1122	33.50
*E-1_*	141	3479	58.98	1936	44.00	14900	122.07	56702	238.12	4443	66.66	1599	39.99	1103	33.21
*E-1_*	142	3511	59.25	1781	42.20	14852	121.87	56578	237.86	4431	66.57	1531	39.13	1058	32.53
*E-1_*	143	3501	59.17	1885	43.42	14917	122.14	56023	236.69	4490	67.01	1498	38.70	1043	32.30
*E-1_*	144	3492	59.09	1798	42.40	14922	122.16	56255	237.18	4513	67.18	1490	38.60	1058	32.53
*E-1_*	145	3619	60.16	1880	43.36	14945	122.25	55496	235.58	4511	67.16	1498	38.70	1153	33.96
*E-1_*	146	3589	59.91	1885	43.42	14953	122.28	55978	236.60	4607	67.87	1495	38.67	1109	33.30
*E-1_*	147	3653	60.44	1843	42.93	14981	122.40	56382	237.45	4634	68.07	1448	38.05	1093	33.06
*E-1_*	148	3676	60.63	1772	42.10	14965	122.33	56060	236.77	4688	68.47	1448	38.05	1089	33.00
*E-1_*	149	3707	60.89	1785	42.25	14741	121.41	56025	236.70	4600	67.82	1489	38.59	1127	33.57
*E-1_*	150	3751	61.25	1796	42.38	14652	121.05	56189	237.04	4823	69.45	1430	37.82	1088	32.98
*E-1_*	151	3714	60.94	1787	42.27	14732	121.38	56009	236.66	4928	70.20	1368	36.99	1045	32.33
*E-1_*	152	4024	63.44	1780	42.19	14847	121.85	56249	237.17	4742	68.86	1378	37.12	1053	32.45
*E-1_*	153	3923	62.63	1755	41.89	14844	121.84	55492	235.57	4992	70.65	1410	37.55	1041	32.26
*E-1_*	154	3981	63.10	1837	42.86	14698	121.24	55992	236.63	4988	70.63	1404	37.47	1009	31.76
*E-1_*	155	4139	64.34	1780	42.19	14947	122.26	55735	236.08	5087	71.32	1389	37.27	970	31.14
*E-1_*	156	4256	65.24	1786	42.26	14571	120.71	55443	235.46	5190	72.04	1403	37.46	1036	32.19
*E-1_*	157	4436	66.60	1785	42.25	14474	120.31	55578	235.75	5306	72.84	1426	37.76	995	31.54
*E-1_*	158	4472	66.87	1736	41.67	14387	119.95	55273	235.10	5412	73.57	1482	38.50	988	31.43
*E-1_*	159	4858	69.70	1663	40.78	14348	119.78	55324	235.21	5336	73.05	1460	38.21	943	30.71
*E-1_*	160	4879	69.85	1704	41.28	14216	119.23	54898	234.30	5278	72.65	1563	39.53	970	31.14
*E-1_*	161	5159	71.83	1797	42.39	13654	116.85	55176	234.90	5411	73.56	1584	39.80	1058	32.53
*E-1_*	162	5056	71.11	1784	42.24	13474	116.08	55070	234.67	5379	73.34	1703	41.27	1055	32.48
*E-1_*	163	5329	73.00	1770	42.07	13385	115.69	55021	234.57	5249	72.45	1784	42.24	1110	33.32
*E-1_*	164	5283	72.68	1826	42.73	13608	116.65	54843	234.19	5249	72.45	1802	42.45	1059	32.54
*E-1_*	165	5441	73.76	1808	42.52	13545	116.38	55018	234.56	5268	72.58	1889	43.46	1005	31.70
*E-1_*	166	5386	73.39	1786	42.26	13388	115.71	55310	235.18	5249	72.45	1944	44.09	950	30.82
*E-1_*	167	5207	72.16	1818	42.64	13001	114.02	55545	235.68	5307	72.85	1889	43.46	946	30.76
*E-1_*	168	4787	69.19	1880	43.36	10570	102.81	57517	239.83	4928	70.20	1969	44.37	1329	36.46
*E-1_*	169	4425	66.52	1909	43.69	9369	96.79	58524	241.92	4556	67.50	2016	44.90	1455	38.14
*E-1_*	170	4423	66.51	1852	43.03	10616	103.03	57979	240.79	4843	69.59	1951	44.17	1382	37.18
*E-1_*	171	4403	66.36	1795	42.37	11798	108.62	57640	240.08	4950	70.36	1746	41.79	1273	35.68
*E-1_*	172	4360	66.03	1799	42.41	12231	110.59	57311	239.40	4970	70.50	1635	40.44	1229	35.06
*E-1_*	173	4047	63.62	1733	41.63	11752	108.41	58433	241.73	4809	69.35	1506	38.81	1167	34.16
*E-1_*	174	3677	60.64	1763	41.99	11329	106.44	59713	244.36	4623	67.99	1382	37.18	1146	33.85
*E-1_*	175	3592	59.93	1766	42.02	11690	108.12	58993	242.88	4635	68.08	1470	38.34	1041	32.26
*E-1_*	176	3676	60.63	1745	41.77	12655	112.49	58334	241.52	4803	69.30	1502	38.76	1132	33.65
*E-1_*	177	3769	61.39	1841	42.91	13242	115.07	57099	238.95	4649	68.18	1506	38.81	1097	33.12
*E-1_*	178	3833	61.91	1845	42.95	13881	117.82	56699	238.12	4607	67.87	1619	40.24	1094	33.08
*E-1_*	179	3714	60.94	1753	41.87	13974	118.21	56626	237.96	4686	68.45	1520	38.99	1113	33.36
*E-1_*	180	3814	61.76	1825	42.72	14057	118.56	56703	238.12	4662	68.28	1522	39.01	1072	32.74
*E-1_*	181	3674	60.61	1879	43.35	13965	118.17	57159	239.08	4610	67.90	1600	40.00	1075	32.79
*E-1_*	182	3686	60.71	1747	41.80	14019	118.40	56990	238.73	4526	67.28	1608	40.10	1047	32.36
*E-1_*	183	3739	61.15	1801	42.44	13925	118.00	57124	239.01	4387	66.23	1514	38.91	1032	32.12
*E-1_*	184	3569	59.74	1793	42.34	13508	116.22	57037	238.82	4365	66.07	1589	39.86	1018	31.91
*E-1_*	185	3533	59.44	1724	41.52	13451	115.98	57934	240.69	4383	66.20	1573	39.66	1019	31.92
*E-1_*	186	3622	60.18	1733	41.63	13053	114.25	58466	241.80	4326	65.77	1504	38.78	1006	31.72
*E-1_*	187	3434	58.60	1739	41.70	13142	114.64	58565	242.00	4471	66.87	1584	39.80	1022	31.97
*E-1_*	188	3592	59.93	1804	42.47	13680	116.96	57560	239.92	4298	65.56	1631	40.39	1083	32.91
*E-1_*	189	3550	59.58	1925	43.87	13901	117.90	57091	238.94	4297	65.55	1650	40.62	1101	33.18
*E-1_*	190	3469	58.90	1842	42.92	13778	117.38	56908	238.55	4238	65.10	1800	42.43	1142	33.79
*E-1_*	191	3529	59.41	1872	43.27	13909	117.94	56835	238.40	4285	65.46	1800	42.43	1122	33.50

EA4_19

*E-1_*	192	3569	59.74	1764	42.00	13820	117.56	57095	238.95	4207	64.86	1734	41.64	1118	33.44
*E-1_*	193	3533	59.44	1725	41.53	13745	117.24	57062	238.88	4204	64.84	1701	41.24	1124	33.53
*E-1_*	194	3473	58.93	1886	43.43	13816	117.54	56995	238.74	4123	64.21	1821	42.67	1170	34.21
*E-1_*	195	3554	59.62	1802	42.45	13987	118.27	57415	239.61	4093	63.98	1781	42.20	1168	34.18
*E-1_*	196	3503	59.19	1889	43.46	13543	116.37	56870	238.47	4031	63.49	1820	42.66	1153	33.96
*E-1_*	197	3495	59.12	1831	42.79	13560	116.45	57216	239.20	4117	64.16	1834	42.83	1163	34.10
*E-1_*	198	3449	58.73	1839	42.88	13612	116.67	57400	239.58	4076	63.84	1742	41.74	1152	33.94

*Dataset is presented in x-ray counts

**Uncertainties are based on counting statistics

Table EA5.1

Isotope ratios from interface traverse across Object A1 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{56}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0	0.0899	0.0001	1.8267	0.0005	0.000212	0.000003	8.8	0.27
0.71	0.0947	0.0001	1.8676	0.0005	0.000215	0.000003	8.48	0.28
1.42	0.0959	0.0001	1.8565	0.0005	0.000199	0.000003	9.25	0.33
2.14	0.0951	0.0001	1.8774	0.0005	0.000198	0.000003	8.96	0.32
2.85	0.0952	0.0001	1.9616	0.0006	0.000188	0.000003	7.84	0.28
3.56	0.0961	0.0001	2.0816	0.0006	0.000206	0.000003	8.04	0.27
4.27	0.1023	0.0001	2.312	0.0007	0.000206	0.000003	8.5	0.3
4.99	0.1043	0.0001	2.6335	0.0007	0.000158	0.000003	7.64	0.3
5.7	0.0994	0.0001	2.8486	0.0008	0.000121	0.000003	8.6	0.4
6.41	0.0953	0.0001	2.7419	0.0008	0.000129	0.000003	7.13	0.3
7.12	0.09	0.0001	2.4656	0.0007	0.000196	0.000003	9.51	0.36
7.84	0.0869	0.0001	2.1681	0.0006	0.000198	0.000003	9.16	0.34
8.55	0.0938	0.0001	2.0243	0.0006	0.000215	0.000004	8.82	0.32
9.26	0.0939	0.0001	1.8646	0.0005	0.00022	0.000004	9.58	0.34

*Measurement uncertainty

Table EA5.2

Isotope ratios from interface traverse across Object B1 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0	0.1375	0.0001	0.0765	0.0001	0.000067	0.000002	6.73	0.64
0.59	0.136	0.0001	0.0731	0.0001	0.000058	0.000002	3.87	0.33
1.18	0.1354	0.0001	0.0708	0.0001	0.000054	0.000002	3.7	0.31
1.77	0.1355	0.0001	0.0692	0.0001	0.000054	0.000002	3.39	0.28
2.36	0.1367	0.0001	0.0683	0.0001	0.000057	0.000002	7.44	0.81
2.95	0.139	0.0001	0.0669	0.0001	0.000045	0.000002	4.74	0.5
3.54	0.141	0.0001	0.0656	0.0001	0.000062	0.000002	5.29	0.48
4.13	0.1459	0.0001	0.0644	0.0001	0.000056	0.000002	7.1	0.8
4.72	0.1512	0.0001	0.0645	0.0001	0.000049	0.000002	4.51	0.43
5.31	0.1567	0.0001	0.0645	0.0001	0.000045	0.000002	3.6	0.34
5.89	0.1631	0.0001	0.0648	0.0001	0.000049	0.000002	4.37	0.42
6.48	0.1716	0.0001	0.0657	0.0001	0.000055	0.000002	7.4	0.88
7.07	0.1821	0.0001	0.0689	0.0001	0.000046	0.000002	4.34	0.44
7.66	0.1957	0.0001	0.0736	0.0001	0.000057	0.000002	4.53	0.44
8.25	0.2165	0.0002	0.0805	0.0001	0.000072	0.000003	5.27	0.49
8.84	0.2402	0.0002	0.0923	0.0001	0.000091	0.000003	4.36	0.34
9.43	0.266	0.0002	0.1077	0.0001	0.000172	0.000004	4.25	0.23
10.02	0.2668	0.0002	0.1168	0.0001	0.000202	0.000005	5.23	0.3
10.61	0.2061	0.0002	0.1101	0.0001	0.000128	0.000004	4.68	0.31
11.2	0.1358	0.0001	0.0928	0.0001	0.000072	0.000003	3.86	0.3
11.79	0.1012	0.0001	0.0771	0.0001	0.000052	0.000002	5.89	0.61
12.38	0.09	0.0001	0.068	0.0001	0.00005	0.000002	4.22	0.4
12.97	0.0889	0.0001	0.0641	0.0001	0.000059	0.000002	8.16	0.91
13.56	0.0909	0.0001	0.0624	0.0001	0.000055	0.000002	5.62	0.57
14.15	0.0941	0.0001	0.0611	0.0001	0.000083	0.000003	6.17	0.53
14.74	0.0979	0.0001	0.0611	0.0001	0.000089	0.000003	5.58	0.43
15.33	0.1028	0.0001	0.0622	0.0001	0.000089	0.000003	6.42	0.53
15.92	0.1058	0.0001	0.062	0.0001	0.000099	0.000003	5.96	0.47
16.51	0.1079	0.0001	0.0618	0.0001	0.000099	0.000003	7.24	0.63
17.09	0.1095	0.0001	0.0626	0.0001	0.000092	0.000003	5.54	0.44
17.68	0.1097	0.0001	0.0628	0.0001	0.000092	0.000003	5.3	0.4
18.27	0.1091	0.0001	0.0626	0.0001	0.000098	0.000003	6.16	0.5
18.86	0.1088	0.0001	0.0631	0.0001	0.000101	0.000003	6.88	0.58

*Measurement uncertainty

Table EA5.3

Isotope ratios from interface traverse across Object B2 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0.00	0.1165	0.0001	0.0830	0.0001	0.000175	0.000002	6.16	0.21
0.77	0.1135	0.0001	0.0813	0.0001	0.000167	0.000002	5.93	0.21
1.54	0.1113	0.0001	0.0793	0.0001	0.000178	0.000002	6.03	0.21
2.32	0.1096	0.0001	0.0776	0.0001	0.000190	0.000002	6.47	0.23
3.09	0.1102	0.0001	0.0760	0.0001	0.000171	0.000002	6.07	0.22
3.86	0.1124	0.0001	0.0744	0.0000	0.000175	0.000002	6.48	0.23
4.63	0.1156	0.0001	0.0735	0.0000	0.000146	0.000002	6.22	0.25
5.40	0.1214	0.0001	0.0749	0.0001	0.000132	0.000002	6.21	0.26
6.17	0.1307	0.0001	0.0806	0.0001	0.000099	0.000002	5.12	0.23
6.95	0.1462	0.0001	0.0865	0.0001	0.000069	0.000002	4.08	0.20
7.72	0.1604	0.0001	0.0891	0.0001	0.000053	0.000001	4.77	0.28
8.49	0.1598	0.0001	0.0861	0.0001	0.000052	0.000001	4.07	0.23
9.26	0.1519	0.0001	0.0797	0.0001	0.000053	0.000001	3.93	0.22
10.03	0.1451	0.0001	0.0744	0.0001	0.000050	0.000001	5.16	0.33
10.81	0.1401	0.0001	0.0716	0.0000	0.000045	0.000001	3.59	0.20
11.58	0.1369	0.0001	0.0707	0.0000	0.000052	0.000001	4.02	0.22
12.35	0.1341	0.0001	0.0707	0.0000	0.000051	0.000001	4.64	0.26
13.12	0.1322	0.0001	0.0718	0.0000	0.000057	0.000001	4.26	0.23
13.89	0.1289	0.0001	0.0720	0.0000	0.000055	0.000001	5.24	0.31
14.66	0.1272	0.0001	0.0726	0.0000	0.000055	0.000001	4.22	0.22

*Measurement uncertainty

Table EA5.4

Isotope ratios from interface traverse across Object B3 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0	0.0751	0.0001	0.0811	0.0001	0.000075	0.000003	3.8	0.33
0.76	0.0716	0.0001	0.0774	0.0001	0.000076	0.000003	3.11	0.24
1.52	0.0707	0.0001	0.0746	0.0001	0.000061	0.000002	2.5	0.18
2.29	0.0729	0.0001	0.0748	0.0001	0.000057	0.000002	2.88	0.22
3.05	0.0747	0.0001	0.0744	0.0001	0.000043	0.000002	2.87	0.26
3.81	0.0743	0.0001	0.0735	0.0001	0.000048	0.000002	3.21	0.29
4.57	0.0751	0.0001	0.0732	0.0001	0.000052	0.000002	2.97	0.26
5.33	0.0711	0.0001	0.0703	0.0001	0.000048	0.000002	4.12	0.45
6.1	0.0684	0.0001	0.0686	0.0001	0.000039	0.000002	1.8	0.16
6.86	0.0711	0.0001	0.0683	0.0001	0.000049	0.000002	2.08	0.16
7.62	0.0772	0.0001	0.0694	0.0001	0.000075	0.000003	4.07	0.33
8.38	0.0806	0.0001	0.0691	0.0001	0.000069	0.000003	4.17	0.35
9.15	0.0791	0.0001	0.0677	0.0001	0.000054	0.000002	2.65	0.21
9.91	0.0797	0.0001	0.0704	0.0001	0.000044	0.000002	2.95	0.28
10.67	0.1039	0.0001	0.0831	0.0001	0.000059	0.000003	4.42	0.46
11.43	0.1122	0.0001	0.0862	0.0001	0.000052	0.000003	4.51	0.51
12.19	0.114	0.0001	0.078	0.0001	0.000045	0.000002	5.32	0.64
12.96	0.1109	0.0001	0.068	0.0001	0.000063	0.000002	6.63	0.72
13.72	0.1134	0.0001	0.0653	0.0001	0.000073	0.000003	5.11	0.46
14.48	0.1134	0.0001	0.0643	0.0001	0.00005	0.000002	4.62	0.48
15.24	0.1122	0.0001	0.065	0.0001	0.000066	0.000003	5.31	0.53
16	0.1106	0.0001	0.0667	0.0001	0.000059	0.000003	4.69	0.5
16.77	0.109	0.0001	0.0676	0.0001	0.000065	0.000003	5.41	0.58
17.53	0.1058	0.0001	0.0678	0.0001	0.000068	0.000003	4.61	0.42
18.29	0.1032	0.0001	0.0673	0.0001	0.000071	0.000003	5.96	0.57
19.05	0.1044	0.0001	0.0688	0.0001	0.000086	0.000003	4.11	0.3
19.82	0.1051	0.0001	0.0696	0.0001	0.000094	0.000003	6.8	0.59
20.58	0.1064	0.0001	0.0716	0.0001	0.000096	0.000003	5.2	0.4
21.34	0.1089	0.0001	0.0737	0.0001	0.0001	0.000003	4.87	0.37

*Measurement uncertainty

Table EA5.5

Isotope ratios from interface traverse across Object C1 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0.00	0.0989	0.0001	0.1318	0.0001	0.000117	0.000003	6.00	0.35
0.78	0.0994	0.0001	0.1286	0.0001	0.000140	0.000003	5.85	0.32
1.56	0.0971	0.0001	0.1236	0.0001	0.000132	0.000003	6.66	0.30
2.33	0.0940	0.0001	0.1186	0.0001	0.000135	0.000003	6.13	0.31
3.11	0.0914	0.0001	0.1150	0.0001	0.000127	0.000003	6.26	0.30
3.89	0.0891	0.0001	0.1128	0.0001	0.000132	0.000003	6.38	0.26
4.67	0.0872	0.0001	0.1111	0.0001	0.000132	0.000003	5.97	0.35
5.45	0.0866	0.0001	0.1110	0.0001	0.000136	0.000003	6.60	0.27
6.22	0.0909	0.0001	0.1183	0.0001	0.000212	0.000004	7.47	0.24
7.00	0.1009	0.0001	0.1380	0.0001	0.000411	0.000006	7.67	0.19
7.78	0.1164	0.0001	0.1701	0.0001	0.000811	0.000008	7.65	0.15
8.56	0.1251	0.0001	0.1910	0.0001	0.000943	0.000009	7.22	0.13
9.34	0.1098	0.0001	0.1688	0.0001	0.000543	0.000007	7.11	0.16
10.11	0.0997	0.0001	0.1476	0.0001	0.000367	0.000005	6.56	0.18
10.89	0.0905	0.0001	0.1299	0.0001	0.000303	0.000005	6.27	0.21
11.67	0.0810	0.0001	0.1114	0.0001	0.000227	0.000004	6.01	0.24
12.45	0.0757	0.0001	0.0983	0.0001	0.000170	0.000004	6.14	0.28
13.23	0.0736	0.0001	0.0928	0.0001	0.000142	0.000003	6.13	0.26
14.00	0.0742	0.0001	0.0918	0.0001	0.000125	0.000003	4.66	0.28
14.78	0.0759	0.0001	0.0934	0.0001	0.000120	0.000003	5.46	0.23

*Measurement uncertainty

Table EA5.6

Isotope ratios from interface traverse across Object C2 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0.00	0.0990	0.0001	0.1130	0.0001	0.000127	0.000003	7.14	0.28
0.65	0.0965	0.0001	0.1118	0.0001	0.000128	0.000002	6.25	0.23
1.29	0.0900	0.0001	0.1096	0.0001	0.000113	0.000002	5.30	0.20
1.94	0.0814	0.0001	0.1052	0.0001	0.000112	0.000002	6.19	0.24
2.59	0.0707	0.0001	0.1000	0.0001	0.000099	0.000002	6.23	0.27
3.23	0.0606	0.0001	0.0953	0.0001	0.000103	0.000002	6.59	0.27
3.88	0.0516	0.0001	0.0911	0.0001	0.000080	0.000002	5.73	0.26
4.53	0.0462	0.0001	0.0869	0.0001	0.000080	0.000002	8.71	0.49
5.17	0.0474	0.0001	0.0831	0.0001	0.000071	0.000002	5.62	0.29
5.82	0.0567	0.0001	0.0856	0.0001	0.000078	0.000002	6.77	0.33
6.47	0.0768	0.0001	0.1071	0.0001	0.000168	0.000003	7.09	0.24
7.11	0.1019	0.0001	0.1458	0.0001	0.000313	0.000004	7.42	0.20
7.76	0.1138	0.0001	0.1762	0.0001	0.000411	0.000005	6.99	0.15
8.40	0.1110	0.0001	0.1868	0.0001	0.000453	0.000005	6.68	0.15
9.05	0.1034	0.0001	0.1873	0.0001	0.000450	0.000005	6.83	0.14
9.70	0.0935	0.0001	0.1838	0.0001	0.000408	0.000005	6.45	0.15
10.34	0.0858	0.0001	0.1812	0.0001	0.000369	0.000004	6.90	0.16
10.99	0.0792	0.0001	0.1791	0.0001	0.000351	0.000004	6.63	0.16
11.64	0.0750	0.0001	0.1791	0.0001	0.000338	0.000005	6.98	0.18
12.28	0.0711	0.0001	0.1791	0.0001	0.000299	0.000004	6.91	0.19
12.93	0.0672	0.0001	0.1795	0.0001	0.000303	0.000004	7.08	0.19

*Measurement uncertainty

Table EA5.7

Isotope ratios from interface traverse across Object D1 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0.00	0.0495	0.0000	0.0593	0.0001	0.000075	0.000002	8.61	0.64
0.86	0.0473	0.0000	0.0563	0.0001	0.000073	0.000002	5.14	0.31
1.72	0.0466	0.0000	0.0562	0.0001	0.000075	0.000002	6.03	0.38
2.57	0.0453	0.0000	0.0555	0.0001	0.000065	0.000002	5.15	0.33
3.43	0.0436	0.0000	0.0546	0.0000	0.000066	0.000002	5.47	0.35
4.29	0.0419	0.0000	0.0539	0.0000	0.000067	0.000002	5.35	0.34
5.15	0.0417	0.0000	0.0547	0.0000	0.000078	0.000002	8.02	0.56
6.00	0.0408	0.0000	0.0546	0.0000	0.000074	0.000002	5.89	0.37
6.86	0.0392	0.0000	0.0530	0.0000	0.000059	0.000002	8.05	0.65
7.72	0.0388	0.0000	0.0529	0.0000	0.000072	0.000002	5.77	0.36
8.58	0.0395	0.0000	0.0600	0.0001	0.000084	0.000002	7.87	0.51
9.43	0.0503	0.0000	0.0788	0.0001	0.000136	0.000002	8.19	0.43
10.29	0.0664	0.0001	0.0821	0.0001	0.000171	0.000003	10.61	0.59
11.15	0.0722	0.0001	0.0762	0.0001	0.000149	0.000003	10.64	0.64
12.01	0.0650	0.0001	0.0649	0.0001	0.000078	0.000002	6.53	0.43
12.87	0.0613	0.0001	0.0590	0.0001	0.000068	0.000002	5.65	0.37
13.72	0.0603	0.0001	0.0588	0.0001	0.000081	0.000002	8.51	0.60
14.58	0.0604	0.0001	0.0614	0.0001	0.000091	0.000002	8.64	0.58
15.44	0.0607	0.0001	0.0645	0.0001	0.000081	0.000002	8.82	0.62
16.30	0.0626	0.0001	0.0687	0.0001	0.000082	0.000002	6.82	0.42
17.15	0.0639	0.0001	0.0742	0.0001	0.000127	0.000002	7.02	0.35

*Measurement uncertainty

Table EA5.8

Isotope ratios from interface traverse across Object D2 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0.00	0.0720	0.0001	0.1080	0.0001	0.000176	0.000003	5.56	0.27
1.20	0.0698	0.0000	0.0995	0.0001	0.000193	0.000002	6.98	0.25
2.41	0.0661	0.0000	0.0922	0.0001	0.000166	0.000002	6.62	0.23
3.61	0.0659	0.0000	0.0906	0.0001	0.000167	0.000002	7.44	0.28
4.81	0.0662	0.0000	0.0907	0.0001	0.000160	0.000002	6.42	0.23
6.01	0.0657	0.0000	0.0900	0.0001	0.000153	0.000002	5.40	0.19
7.22	0.0692	0.0000	0.0971	0.0001	0.000144	0.000002	5.29	0.19
8.42	0.0670	0.0001	0.0962	0.0001	0.000130	0.000002	5.25	0.22
9.62	0.0645	0.0000	0.1028	0.0001	0.000122	0.000002	4.67	0.19
10.82	0.0726	0.0000	0.1166	0.0001	0.000120	0.000002	5.51	0.23
12.03	0.0927	0.0001	0.1143	0.0001	0.000154	0.000002	6.39	0.25
13.23	0.0815	0.0001	0.0988	0.0001	0.000142	0.000002	6.35	0.26
14.43	0.0702	0.0000	0.0932	0.0001	0.000139	0.000002	5.79	0.23
15.63	0.0629	0.0000	0.0935	0.0001	0.000120	0.000002	6.57	0.30
16.84	0.0613	0.0000	0.1021	0.0001	0.000132	0.000002	6.63	0.31
18.04	0.0585	0.0000	0.1044	0.0001	0.000117	0.000002	7.33	0.38
19.24	0.0574	0.0000	0.1085	0.0001	0.000104	0.000002	6.84	0.34
20.45	0.0574	0.0000	0.1153	0.0001	0.000096	0.000002	5.71	0.26
21.65	0.0594	0.0000	0.1191	0.0001	0.000075	0.000001	5.51	0.28
22.85	0.0630	0.0000	0.1219	0.0001	0.000074	0.000001	6.11	0.32
24.05	0.0676	0.0000	0.1275	0.0001	0.000082	0.000002	5.78	0.29

*Measurement uncertainty

Table EA5.9

Isotope ratios from interface traverse across Object E1 as determined from nanoSIMS ion image

Distance (Microns)	$^{44}Ca/^{30}Si$	1σ*	$^{54}Fe/^{30}Si$	1σ	$^{235}U/^{30}Si$	1σ	$^{235}U/^{238}U$	1σ
0.00	0.0624	0.0001	0.0948	0.0001	0.000114	0.000002	8.17	0.50
0.90	0.0680	0.0000	0.0939	0.0001	0.000149	0.000002	6.21	0.23
1.79	0.0694	0.0000	0.0906	0.0001	0.000162	0.000002	7.18	0.28
2.69	0.0712	0.0000	0.0896	0.0001	0.000197	0.000002	7.45	0.25
3.59	0.0755	0.0000	0.0927	0.0001	0.000223	0.000003	7.97	0.27
4.48	0.0790	0.0000	0.0930	0.0001	0.000242	0.000003	7.37	0.23
5.38	0.0822	0.0000	0.0933	0.0001	0.000281	0.000003	7.57	0.21
6.27	0.0912	0.0001	0.1091	0.0001	0.000287	0.000003	8.27	0.25
7.17	0.1225	0.0001	0.1405	0.0001	0.000313	0.000003	7.78	0.22
8.07	0.1542	0.0001	0.1494	0.0001	0.000279	0.000003	8.22	0.27
8.96	0.1714	0.0001	0.1551	0.0001	0.000272	0.000003	8.91	0.30
9.86	0.1628	0.0001	0.1465	0.0001	0.000243	0.000003	8.51	0.31
10.76	0.1499	0.0001	0.1362	0.0001	0.000217	0.000003	7.16	0.25
11.65	0.1319	0.0001	0.1262	0.0001	0.000194	0.000002	7.94	0.30
12.55	0.1167	0.0001	0.1169	0.0001	0.000166	0.000002	7.66	0.31
13.45	0.1072	0.0001	0.1134	0.0001	0.000166	0.000002	8.30	0.33
14.34	0.0965	0.0001	0.1080	0.0001	0.000159	0.000002	8.14	0.34
15.24	0.0872	0.0001	0.1051	0.0001	0.000157	0.000002	10.07	0.44
16.13	0.0809	0.0001	0.1040	0.0001	0.000155	0.000002	6.49	0.24
17.03	0.0775	0.0000	0.1050	0.0001	0.000156	0.000002	6.49	0.23

*Measurement uncertainty

Electronic Annex 6 – EPMA probe diameter and alkali volatilization

In order to study the effect of alkali volatilization in the fallout samples due to electron probe beam interactions, a series of analyses were acquired on Lake County obsidian glass, which has a composition very similar to the fallout glass that was the subject of study for this thesis (76% SiO_2, 13% Al_2O_3, Watson et al. 1983). A series of 10 WDS analyses were acquired for each of 5 different spot sizes, ranging from the focused probe diameter up to a 20 microns spot size, under otherwise identical conditions. The average concentration for Na_2O from 10 spots is plotted for each probe diameter, as well as the standard deviation, in Figure EA23A. As seen in the plot, there is approximately a 15% relative depletion from the highest to the lowest probe diameter, with measured concentration systematically decreasing as the probe diameter is increasingly focused. This trend was not observed in the K_2O concentration Figure EA23B; however, this is consistent with the study by Siivola et al. 1969, which found that Na generally volatilizes more readily. Thus, the EPMA measurements of Na_2O made on the fallout samples may be depleted, or incorporate a degree of uncertainty in each individual measurement of more than 15%. While it is unclear to what extent this effect is present in the EDS analyses, the smaller relative variation of the spot analyses acquired by semi-quantitative EDS (rather than EPMA) suggests that these data may be more reliable for illustrating relative compositional variation of Na in the fallout samples.

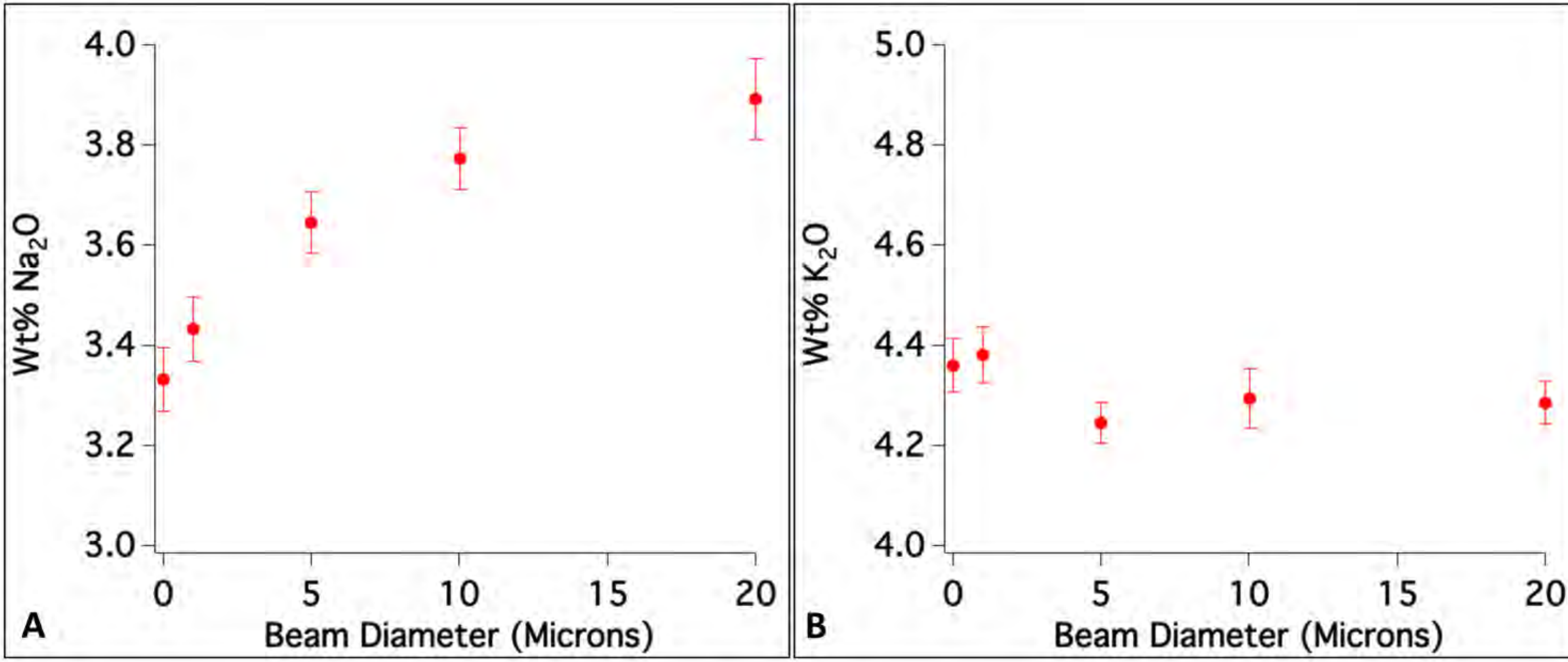


Figure EA23: (a) EPMA analyses for Na_2O on homogenized Lake County obsidian glass for spot sizes ranging from 20 microns down to the focused probe diameter (<<1 micron), showing a systematic decrease in concentration with increasing probe diameter. (b) EPMA analyses for K_2O using the same parameters, showing no discernible volatilization trend.

References:

Watson E. B. and Harrison T. M. (1983) Zircon saturation revisited: temperature and composition effects in a variety of crustal magma types. *Earth and Planetary Science Letters.* **64**, 295-304.

Siivola J. (1969) On the evaporation of some alkali metals during the electron micro-probe analysis. *Bull. Geol. Soc. Finland.* **41**, 85-91.